

## TABLE OF CONTENT

<b>MANAGING INNER FORCES AND OUTER THREATS OF THE COMPANY DURING CRISIS .....</b>	<b>9</b>
ANDRON Daniela Roxana .....	9
<b>TRENDS AND CHALLENGES IN HUMAN RESOURCE MANAGEMENT AND ORGANIZATION PERFORMANCE .....</b>	<b>16</b>
BERCU Ana-Maria .....	16
<b>BEST PRACTICES FOR CREATING AN EFFICIENT EXECUTIVE BOARD IN TIMES OF ECONOMIC CRISIS .....</b>	<b>25</b>
BODISLAV Dumitru-Alexandru .....	25
DINU Mircea Alexandru .....	25
<b>A MULTIREGIONAL ANALYSIS OF THE ENTREPRENEURSHIP IN ROMANIA'S RURAL AREAS IN THE CONTEXT OF EUROPEAN FUNDING OPPORTUNITIES</b>	
BURCEA Marin .....	33
<b>ASPECTS REGARDING MATHEMATICAL MODELS FOT DETERMING THE LINK BETWEEN PRODUCTION, STOCK MANAGEMENT AND LEAD TIME ...</b>	<b>42</b>
CAMPEAN Emilia Maria .....	42
MORAR Liviu .....	42
POP Dumitru .....	42
<b>A HYBRID MODEL FOR THE ASSEMENT OF THE ORGANIZATIONAL CULTURE AT COMPANY LEVEL, ADAPTED TO THE ROMANIAN BUSINESS ENVIRONMENT .....</b>	<b>49</b>
CERCEL Mihai Ovidiu .....	49
<b>AN EMPIRIC COMPARATIVE RESEARCH ON HUMAN RESOURCE MANAGEMENT IN ROMANIA – SOCIALIST AND POST-SOCIALISM PERIOD.</b>	<b>57</b>
CHAȘOVSCI Carmen .....	57
NĂSTASE Carmen .....	57
MOHR Carol .....	57
<b>UNDER THE VEIL OF A GLOBAL ECONOMIC, FINANCIAL, POLITICAL AND SOCIAL CRISES .....</b>	<b>66</b>
CHEPTEA Madalina .....	66
BODISLAV Dumitru-Alexandru .....	66
<b>THE CONTRIBUTION OF ECOCLUSTERS ON THE REGIONAL DEVELOPMENT: AN AUSTRIAN CASE STUDY .....</b>	<b>75</b>
CHINIE (PĂNĂZAN) Alexandra-Cătălina .....	75
CÎNTEA Codruta .....	75
<b>THE ENVIRONMENTAL CONTINGENCIES OF KNOWLEDGE DISSEMINATION: THE CASE OF CONSULTANCIES IN INTERNATIONAL DEVELOPMENT .....</b>	<b>84</b>
CIUMARA Tudor .....	84
O'MAHONEY Joe .....	84
<b>THE HUMAN DEVELOPMENT INDEX AND THE EVOLUTION OF THE QUALITY OF LIFE .....</b>	<b>93</b>
CODREANU Carmen Mariana .....	93
<b>THE IMPACT OF LATEST IT TECHNOLOGIES OVER THE EFFICIENCY OF A KNOWLEDGE-BASED ORGANIZATION MANAGEMENT IN ROMANIA .....</b>	<b>98</b>
COJOCARU Camelia .....	98
<b>ECONOMICAL SYSTEMS – NEW TRENDS FOR APPLICATION INTEROPERABILITY .....</b>	<b>107</b>
COJOCARU Silviu .....	107
COJOCARU Camelia .....	107

<b>GLOBALIZATION AND ITS CONSEQUENCES TO THE ECONOMIC ORGANIZATIONS .....</b>	<b>112</b>
CONSTANTINESCU Răzvan .....	112
<b>PURCHASE STRATEGY – NECESSITY AND CONSTRAINTS.....</b>	<b>119</b>
CRIȘAN Silviu.....	119
<b>CSR INTEGRATION IN CRISIS MANAGEMENT – NEW OPPORTUNITIES FOR ORGANISATIONS.....</b>	<b>125</b>
CRISTACHE Nicoleta .....	125
MICU Adrian .....	125
SUSANU Irina Olimpia .....	125
<b>CALCULATING METHODS REGARDING THE INFORMATIONAL MODERNISATION OF THE EMERGENCY MANAGEMENT .....</b>	<b>132</b>
DAN Gheorghe .....	132
MORAR Liviu.....	132
<b>PROJECT MANAGEMENT RISK ASSESMENT WITHIN LARGE CORPORATIONS .....</b>	<b>139</b>
DIRVA Cristian.....	139
DIRVA Anda Simona .....	139
<b>TAX CULTURE AS DETERMINANT OF TAX COMPLIANCE. THE CASE OF ROMANIA .....</b>	<b>147</b>
DONATH Liliana.....	147
BIZOI Alexandra Codruța .....	147
SEULEAN Victoria.....	147
<b>ANALYSIS OF THE MAIN INTERNATIONAL STANDARDS AND GUIDELINES ABOUT PROJECT RISK MANAGEMENT .....</b>	<b>157</b>
DROB Cătălin .....	157
<b>BETWEEN SUBJECTIVE AND OBJECTIVE IN MAKING DECISIONS ON THE ROMANIAN HIGHER EDUCATION MARKET .....</b>	<b>162</b>
DRUICĂ Elena .....	162
CORNESCU Viorel .....	162
IONESCU Vladimir-Codrin.....	162
<b>THE EVALUATION OF A BLOCKING TRADEMARK OWNED BY A COMPANY IN INSOLVENCY PROCEDURE. CASE STUDY .....</b>	<b>169</b>
FÂNTÂNĂ Raul Sorin.....	169
<b>GLOBALIZATION ERA AND HUMAN RESOURCES MANAGEMENT .....</b>	<b>176</b>
FRATICIU Lucia .....	176
POPA Liliana Mihaela .....	176
INDRES Mihai .....	176
<b>A SNAPSHOT OF ROMANIAN ECONOMY IN THE FIRST YEAR AFTER EUROPEAN UNION ADHESION.....</b>	<b>181</b>
GAFTEA Viorel.....	181
POPA Ancuța .....	181
<b>COMPARATIVE ANALYSIS OF CORPORATE GOVERNANCE IN CENTRAL AND EASTERN EUROPE.....</b>	<b>191</b>
GAVREA Corina .....	191
STEGEREAN Roxana .....	191
<b>SOME CONSIDERATIONS ON THE MEETING OF PATIENTS. CASE STUDY: CHRONIC DISEASE HOSPITAL SMEENI - BUZAU.....</b>	<b>197</b>
GIRBAN Marilena Gela.....	197
PARGARU Ion .....	197
<b>SUSTAINABILITY MANAGEMENT IN ROMANIA: CHALLENGES AND OPPORTUNITIES.....</b>	<b>203</b>

GRECU Valentin.....	203
DENES Călin .....	203
<b>RISK MANAGEMENT STRATEGIES IN CRISIS CONDITIONS. A PROFILE OF ORGANIZATIONAL RESILIENCE .....</b>	<b>213</b>
GRIGORESCU Adriana .....	213
ODAGIU Cristian .....	213
<b>NATIONAL COMPETITIVENESS – SCENARIOS FOR ROMANIA.....</b>	<b>223</b>
HERCIU Mihaela.....	223
<b>KNOWLEDGE MANAGEMENT IN EU FOUNDED PROJECTS .....</b>	<b>233</b>
ILIES Liviu .....	233
MURESAN Ioana Natalia * .....	233
MUNTEAN Bianca.....	233
<b>CREATIVITY, INNOVATION AND CHANGE IN KNOWLEDGE-BASED ORGANIZATION.....</b>	<b>241</b>
IONESCU Vladimir-Codrin.....	241
CORNESCU Viorel .....	241
DRUICĂ Elena .....	241
<b>THE HUMAN RESOURCES MANAGER - A MODERATOR FACTOR OF THE ORGANIZATIONAL CHANGE.....</b>	<b>248</b>
IORDACHE Loredana .....	248
CRIVEANU Ion.....	248
<b>THE WORKING CONDITIONS OF HIGHLY QUALIFIED EMPLOYEES IN ROMANIA AND HUNGARY, ACCORDING TO SOME EXPERTS FROM THE TWO COUNTRIES, IN THE CURRENT ECONOMIC CRISIS .....</b>	<b>254</b>
LEOVARIDIS Cristina .....	254
<b>RESEARCHES REGARDING THE APPLICATION OF THE CLASSIC TOOLS OF QUALITY MANAGEMENT IN HIGHER EDUCATION UNITS .....</b>	<b>264</b>
LUCA Liliana.....	264
MIHUT Nicoleta .....	264
<b>COLLECTIVE LEADERSHIP – ORGANIZATIONAL DIMENSION OF HUMAN RESOURCES STRATEGIC DEVELOPMENT.....</b>	<b>269</b>
MANOLE Cristina .....	269
ALPOPI Cristina .....	269
<b>WORK CAPACITY AND FATIGUE RELATION IN EMPLOYEES ACTIVITY....</b>	<b>277</b>
MANOLESCU Aurel.....	277
MOROSAN-DANILA Lucia .....	277
BORDEIANU Otilia-Maria .....	277
<b>EVOLUTION OF MAIN STATISTICAL INDICATORS THAT CHARACTERIZE ANIMAL PRODUCTION AT COUNTY LEVEL TELEORMAN FOR THE PERIOD 2000-2009.....</b>	<b>287</b>
MARA Florica.....	287
NECULA Raluca.....	287
<b>MANAGEMENT STRATEGIES OF THE ORANGE MOBILE TELECOMMUNICATIONS COMPANY FACING THE ECONOMIC-FINANCIAL CRISIS.....</b>	<b>293</b>
MARCU Nicu .....	293
MEGHISAN Georgeta-Madalina.....	293
<b>LEADERSHIP AND THE SOURCES OF POWER .....</b>	<b>299</b>
MARINESCU Paul .....	299
TOMA Sorin-George .....	299
<b>MANAGEMENT CHALLENGES- A PREVIEW IN FUTURE OF CAPITALISM -</b>	<b>307</b>
MIHĂESCU Liviu .....	307

MIHĂESCU Diana .....	307
<b>HOW SOCIAL RESPONSIBILITY IMPROVE THE INNOVATION POTENTIAL OF COMPANIES. EVIDENCE FROM ROMANIA .....</b>	<b>312</b>
MILITARU Gheorghe.....	312
<b>RISK MANAGEMENT AND THE IMPLICATIONS TO BUSINESS SUCCESS ....</b>	<b>321</b>
MILITARU Mădălina .....	321
CHENIC (CREȚU) Alina Ștefania .....	321
<b>THE EFFECTIVENESS OF PRODUCTION FACTORS USAGE DURING THE ECONOMIC CRISIS. AN APPROACH IN THE SUGAR INDUSTRY .....</b>	<b>327</b>
CUREA Ștefania Cristina .....	327
CREȚU Raluca Florentina .....	327
CIORA Costin .....	327
<b>TEAMS AND THEIR ROLE IN MODERN ORGANIZATIONS.....</b>	<b>337</b>
MUSCALU Emanoil.....	337
MUNTEAN Silvana Nicoleta .....	337
<b>EMPLOYMENT TREND AND UNEMPLOYMENT ISSUE IN ROMANIAN ECONOMY.....</b>	<b>345</b>
MUSCALU Emanoil.....	345
STANIT Alexandra .....	345
<b>SOLUTIONS FOR MARKET DOMINANCE THROUGH COST LEADER STRATEGY.....</b>	<b>352</b>
NEAMȚU Liviu , .....	352
NEAMȚU Adina Claudia.....	352
<b>INFLUENCING FACTORS OF PRICE AND ASSOCIATED STRATEGIES .....</b>	<b>359</b>
NEAMȚU Liviu .....	359
NEAMȚU Adina Claudia.....	359
<b>THE MAIN INDICATORS OF DEVELOPMENT OF MECHANIZED FARMING IN BUZAU COUNTY.....</b>	<b>367</b>
NECULA Raluca.....	367
NECULA Diana .....	367
<b>KNOWLEDGE MANAGEMENT FOR SMEs IN THE KNOWLEDGE-BASED ECONOMY.....</b>	<b>373</b>
NIKOLOVA Elena.....	373
FOTOV Risto .....	373
SAMONIKOV Marija Gogova .....	373
<b>STUDY REGARDING THE ATTITUDES TOWARD CORPORATE SOCIAL RESPONSIBILITY OF THE WORLD'S TOP TRANSNATIONAL CORPORATIONS</b>	
OGREAN Claudia.....	381
<b>GLOBAL CRISIS: SEARCHING THE ORIGINS BY BUSINESS ECONOMICS ...</b>	<b>388</b>
POLLIFRONI Massimo.....	388
<b>THE ACCOUNTING DUALISM –.....</b>	<b>396</b>
<b>STRATEGIC BASIS OF THE FIRMS DURING THE ECONOMIC CRISES.....</b>	<b>396</b>
POP (GRIGORESCU) Ioana Iuliana .....	396
<b>GENDER DIFFERENCES IN LEADERSHIP .....</b>	<b>403</b>
POPESCU Silvia.....	403
<b>GENERAL ASPECTS REGARDING THE APPROACH OF NATIONAL CULTURE</b>	
POPOVICI Norina .....	411
MORARU Camelia.....	411
HORGA Maria-Gabriela .....	411
<b>RELATIONAL STRATEGIES – A MANAGERIAL SOLUTION DURING THE CRISIS.....</b>	<b>417</b>
PRICOP Oliver Constantin .....	417



<b>CASE STUDY ON THE STATE OF PROJECTS ACCESSED BY PUBLIC INSTITUTIONS IN CENTRE REGION.....</b>	<b>423</b>
RANF Diana Elena.....	423
TODĂRIȚĂ Elida-Tomița .....	423
DUMITRAȘCU Dănuț.....	423
<b>ACTIONS, METHODS AND TOOLS FOR THE QUALITY EVALUATION OF EDUCATIONAL SERVICES - A COMPARATIVE APPROACH .....</b>	<b>430</b>
ROMAN Teodora.....	430
MAXIM Emil.....	430
MANOLICĂ Adriana .....	430
<b>DIAGNOSIS OF STRESS FACTORS IN MILITARY ENVIRONMENT.....</b>	<b>437</b>
RUS Mihaela .....	437
<b>TECHNICAL EFFICIENCY ANALYSIS AT S.C. AVICOLA CREVEDIA.....</b>	<b>447</b>
SANDA (COSTAICHE) Georgiana Melania .....	447
OANCEA Margareta.....	447
<b>PERSPECTIVES ON THE INFLUENCE OF EDUCATION AND CULTURE ON ENTREPRENEURIAL BEHAVIOR. CURRENT SYNOPSIS OF THE LITERATURE</b>	
ȘERBAN-OPRESCU Anca-Teodora.....	455
ȘERBAN-OPRESCU George Laurentiu .....	455
<b>THE MANAGEMENT OF SUPPLIERS SELECTION OF DANGEROUS SUBSTANCES FROM MINING INDUSTRY USING FUZZY LOGIC .....</b>	<b>461</b>
SÎRB Lucian.....	461
<b>BUSINESS LEADERSHIP BIASES: ANDROCENTRISM, ETHNOCENTRISM AND CHRONOCENTRISM .....</b>	<b>471</b>
SOFICĂ Aurelian.....	471
NEGRUȘA Adina.....	471
<b>GENDER ISSUES IN WORKPLACE VIOLENCE.....</b>	<b>481</b>
STĂICULESCU Ana Rodica,.....	481
<b>PRIVATISATION IN EAST GERMANY AND ITS IMPLICATIONS ON THE LABOR MARKET AND HUMAN RESOURCE MANAGEMENT .....</b>	<b>488</b>
STAMULE Tanase.....	488
TĂNASE Ionut Dragos .....	488
<b>HUMAN RESOURCES MANAGEMENT EFFICIENCY IN THE MILITARY ORGANIZATION.....</b>	<b>498</b>
STĂNIȚĂ Alexandra .....	498
RIZESCU Marius .....	498
<b>MANAGING CORPORATE SOCIAL RESPONSIBILITY IN FINANCIAL CRISIS</b>	
STOIAN Ciprian-Dumitru .....	503
<b>CRISIS AND CRISIS MANAGEMENT. CREATIVE ECONOMY AS A FEASIBLE OPTION. CHALLENGES AND OPPORTUNITIES.....</b>	<b>508</b>
SUCIU Marta-Christina .....	508
ALDEA-PARTANEN Andra.....	508
PICIORUȘ Luciana.....	508
<b>INTERNAL AUDIT. FINDING SOMEONE GUILTY OR FINDING SOLUTIONS.518</b>	
SUSMANSCHI Georgiana .....	518
CONSTANTIN Nicolae Vasile.....	518
<b>IMPROVING THE EFFICIENCY OF LOGICAL FRAMEWORK APPROACH AS A PROJECT MONITORING AND EVALUATION INSTRUMENT .....</b>	<b>523</b>
TACHE Florin.....	523
<b>CONNECTING POLLUTION ABATEMENT COSTS TO THE DYNAMICS OF ECONOMIC INSTRUMENTS FOR POLLUTION CONTROL.....</b>	<b>530</b>
ȚĂPURICĂ Oana-Cătălina.....	530

<b>CHANGES AND CHALLENGES OF THE CONTEMPORARY KNOWLEDGE BASED ECONOMY .....</b>	<b>537</b>
TODERICIU Ramona .....	537
FRATICIU Lucia .....	537
<b>RELATION BETWEEN SUSTAINABILITY AND LEAN MANAGEMENT .....</b>	<b>543</b>
TODORUȚ Amalia Venera.....	543
<b>THE ROLE OF EDUCATION IN DEVELOPING A CULTURE OF SUSTAINABILITY.....</b>	<b>552</b>
TODORUȚ Amalia Venera.....	552
CÎRNU Doru .....	552
<b>THE SOCIAL RESPONSIBILITY OF BUSINESS ORGANIZATIONS: THE CASE OF PFIZER.....</b>	<b>558</b>
TOMA Sorin-George .....	558
MARINESCU Paul .....	558
<b>REALISING A SUPPORT FOR REDUCE WATER POLLUTION BY NITRATES FROM AGRICULTURAL SOURCES.....</b>	<b>566</b>
TRICĂ Carmen Lenuța .....	566
PICIU Gabriela Cornelia.....	566
<b>THE MANAGEMENT OF THE ENVIRONMENTAL RISK FROM THE PERSPECTIVE OF THE FINANCIAL ACTIVITIES.....</b>	<b>571</b>
TRICĂ Carmen Lenuța .....	571
PICIU Gabriela Cornelia.....	571
<b>CURRENT STATUS OF RESEARCH IN THE DOMAIN OF THE PRE - UNIVERSITY MANAGEMENT.....</b>	<b>577</b>
TUȘA Ana.....	577
VOINIA Claudiu Sorin .....	577
DUMITRASCU Dănuț Dumitru .....	577
<b>LEADERSHIP'S INFLUENCE ON OTHERS .....</b>	<b>582</b>
TUTULEA Anca .....	582
<b>THE PROCESS OF CHANGE IN ROMANIAN BANKING SYSTEM: THE DIAGNOSIS PHASE .....</b>	<b>588</b>
VĂRZARU Mihai .....	588
ALBU Carmen Cristina.....	588
VĂRZARU Anca Antoaneta.....	588
<b>COMPARISON BETWEEN THE LOBBY ACTIVITIES IN EU AND USA – A THEORETICAL APPROACH .....</b>	<b>595</b>
VASILCOVSCHI Nicoleta .....	595
OANTA Stefan Ilie .....	595
<b>MANAGING ROMANIAN ORGANIZATION TO DEAL WITH CRISES .....</b>	<b>599</b>
VELCIU Magdalena .....	599
<b>SOCIAL CARE ORGANIZATIONS AND INSTITUTIONS .....</b>	<b>605</b>
ZODIERIU Elena.....	605

# MANAGING INNER FORCES AND OUTER THREATS OF THE COMPANY DURING CRISIS

**ANDRON Daniela Roxana**

*Assistant professor / Ph.D., Sciences of Education Department, "Lucian Blaga" University of Sibiu, Romania, dana.andron@hotmail.com*

**Abstract:** *The paper presents research results revealing the need to focus on the major resource of the company – the human resource, bearer of the knowledge, creativity and power of the company. The most important threats of present economical context were intended to be identified and proved to origin in government attitude and strategies. Prior to contouring conclusions, an image of the new managers expected to reach success in the Romanian economy is presented, as it is shown by a survey conducted in Lucian Blaga University of Sibiu.*

**Key words:** human resource, innovation, risk, anti-corruption regulation

**JEL classification:** M10

## 1. Introduction

Organizations of XXI-st century are facing a business environment characterized by expansion dynamism and dramatic crises hard to imagine decades before. Survival and eventual consolidation of the company position in such an economical environment demands for different effort – effort to gain information, knowledge, creativity and innovation. We are in the context of profound if not even dramatic change that will fundamentally affect not only the organization and its management, but even economical system as a whole, which is to be less comparable to the classic, traditional economic system. The main resource of the organizations in the present and the next future proves to be, inevitably, the human resource. The development efforts of the modern company will thus have to focus mainly on this important resource; adapting to the changing economical environment means, under these circumstances, not only adapting of production or/and sales strategies, but mainly re-shaping of the human resource in order to successfully face the business conditions.

The paper presents some of the results of a wider survey conducted in business area, based on questionnaires answered by 75 managers and specialists in business administration and by management students - Lucian Blaga University, Faculty of Economic Sciences (50 students).

## 2. Developing the human resource potential of the company

Organizations technically and commercially adapted to the new evolutions of the business environment will have to become fully aware of the permanence and inevitability of risk and therefore they will have to develop coherent, prompt and efficient systems of risk management. This can not be achieved without a human force that admits, accepts and undertakes this orientation. The modality that the company responds to perturbations or challenges of the business environment is greatly dependent on the modality that the human resource of the organization will manage to face these stimuli.

These might be the reason for a good risk management to focus, according to the specialist of PRMIA - an international association of professionals in risk management – on the education, awareness and commitment of the human resource of the company in risk management. Risk management infrastructure should provide a few important orientation directions for risk management such as:

- ⊕ Providing general management of training the entire work-force of the company
- ⊕ Providing and checking on implementing of the risk management policies for the company employees as a whole in order to avoid problems that might have adverse impact
- ⊕ Actively and constantly providing continuous professional development of the staff working in risk management departments while demanding these professionals to respect high performance standards and professional ethics standards.

As the major change in the new economical system is, finally, a change in mentality more than a change in technology, risk will considerably diversify as the human factor involved is mostly

heterogeneous. The evolution of the new millennium organizations reveals social problems never so dramatic, the working stress being by far the most important. The situation is perfectly understandable given the world-wide economy evolutions, but not at all to be neglected, as it generates low performance, first of all. Problems such as overwhelming workloads – starting with the top managers and going down towards the receptionist of the company - or incoherent job descriptions, inadequate communication, lack of career opportunities due to narrow and over-specialized work market, non-equitable performance assessing systems leading to unfair payment, restrictions referring to work conduct, seem to be more frequent within important economical conglomerates. This situation strongly contradicts the thesis that work should be a way to establish identity and a provider of psychical wellbeing, the way towards self-esteem which is essential in safeguarding personal integrity, as Sigmund Freud stated by establishing fundamental reference points of mental health – love and work – that strengthen the position of the human being not only within society but also in regard to own ego.

This is the reason why the most important goal of human resource management should be providing the stability state to those employees that provide real results of their work for the company, as the psychic well-being of the individuals will consequently lead to the proper functioning of the organization. This goal can be achieved not necessarily by sophisticated management techniques, but mainly by providing responsible management, by generating a healthy work environment that will generate a better adaptation process for the employees, thus stimulating their creative skills. Employees in the successful companies trust the management, they have a clear purpose of their work, they enjoy healthy team-work relationship within the organization and they generally are proud of their work and their belonging to the organization. This is a direct result of the top companies having succeeded in stimulating staff by providing positive climate, limiting firing policies, establishing horizontal management structures, providing adequate informational systems and flexible work hours, creating the close contact of individuals with the community – all of these revealing real and successful efforts directed towards founding a human and creative organizational culture that positively influences mental strength of employees.

A top-performance organization is that organizational structure that is successfully gaining value from the human potential it manages. Unfortunately, a large majority of organizations have failed in providing loyalty of employees for the company, by organizational re-designing and excessive concern for value provided to stockholders, leading to the situation that employees have become more like independent agents whose identifying to the organization is increasingly useless due to the continuous diminishing and organizational cynicism dramatically develops.

In order to provide a work-force that constructively and creatively undertakes risks that the company faces, and to make sure that these are the only risks that the employees have to manage, the requests mentioned below should be considered by the company management:

- Creating certitude for the employees upon the existence of the same goal for the entire organization – providing clear and firm vision on the future of the company and its fundamental goals. This will generate a join team having the same goal and a strong group identity, oriented towards achievement and finding meaning in their work.
- Generating self-determination – employees do not have to consider themselves simple parts of a larger system but responsible individuals who have to make their own choices during the work processes they are involved in.
- Providing the employees the impact perception – each employee must be aware that his actions within the company really matter.
- Generating of the competence awareness – employees will know that they grow with the company, continuous professional development being essential. Their creativity will be profitable only if their need to explore will find expression channels.
- Development of shared values sense of the employees – by sustaining and developing team-work, sincerity, professional authority, respect for each individual, client orientation, competitiveness and desire to win, entrepreneurship, responsibility, continuous learning and open-minded attitude towards change doubled by self-confidence and trust in the company evolution.

Priorities of management might be, further to those previously shown:

- Selectivity in personnel hiring
- Providing priority for strong participative attitude and commitment of employees
- Important fund allocation towards training and development of employees, continuously aiming to revitalize human assets – bearer of knowledge

- Avoidance of organizational dimension growth – structure allowing division to smaller units as soon as organizational dimensions tend to increase, either by establishment of smaller companies under an umbrella-type structure focusing on project teams or by means of responsibility centers or profit centers
- Minimizing the hierarchical differences (in spite of the natural need of the human behavior for hierarchical structures) in order to spread decisional authority and responsibility over all the organizational areas
- Wide distribution of financial and operational responsibility
- Facilitating innovation by providing considerable autonomy – thus stimulating creativity – by stimulating equilibrium of interactions between parts of the organization and recognizing contribution of individuals
- Stimulating collaboration, team-work, mutual support – by stimulating and rewarding fruitful interaction between individuals and departments, thus consolidating a high level of trust.
- Valuing diversity – differences between people enrich creativity and quality of decisions
- Encouraging risk undertaking and experiments – thus providing a open climate, sincerity

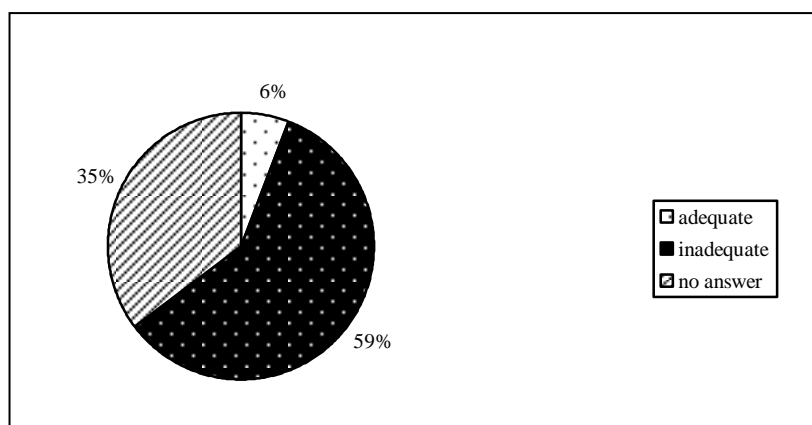
### 3. Managing business in uncertain economical context – threats and solutions

In order to face competition the company has to be fully aware of the economical context: a correct analysis of the external influences should primarily consider own market: existent companies that might be competitors, their strategies, their goals and objectives, but also those companies that are developing on the same market – their motivations to enter the market and/or develop on new markets, strengths and eventual vulnerabilities, change initiated or even intended by these companies, eventual negotiation options for market delimitation. For the same market, competitors are individualized by own business conduct, starting with strategies and ending with organizational culture. Reaching business success is a characteristic for each player but it strongly depends on the different approach and the ability to survive and surpass same difficulties faced by all the players – the economical environment.

The need for efficient regulation of the business environment that should be provided by the government is, under these circumstances, real – as long as it is correct, coherent and intending prevention. This need for adequate regulation was generated by the dramatic echo of the important financial crises generated by the great scandals involving corporate giants as Enron or Parmalat. The amplitude of the crises generated by such bankruptcies requested the need of business conduct regulation by means of legal standardization referring to preventive regulation requests in business management not only for the corporate business (the Oxley-Sarbanes Act) but also for banking (Basel II); such legal norms were adopted and internationally implemented imposing legal norms for business to be adopted by the entire business community joining the business structures these legal norms refer to.

As far as the Romanian preventing governmental strategies are concerned, and the role of the governmental structures in providing safe economical environment, the specialists interviewed in conducting the survey are generally discontent about the institutional prevention by government regulation of business environment. Opinions were formulated referring to the difficulty to keep up ethical norms and to respect market rules due to the economical and political instability, legal incertitude and aggressive tax policies.

**Figure 1: Opinions expressed by specialists on business conduct regulation in Romania**



The most important needs of the business environment in Romania should be, as managers and specialists interviewed declared, urgent anti-corruption regulation; the most important directions identified by the survey refers to gradually but irreversible withdrawal of government from economy administration, limited area for public decision and zero tolerance for corruption phenomenon.

The immediate measures to be adopted, as the survey revealed, should refer to:

- Development of financial market and capital market
- eliminating of preferential economical procedures, by enforcement of fair principles, such as *erga omnes* opposability, free access to resources and equal rights.
- Free access to public data and information – whatever the source might be – with recognition of added value in the situation of data processing
- Free competition, with respect of loyalty
- Controlling monopoly and monopolistic position – either public or private
- Definitive abandon of public monopolistic position in public utilities supply
- Clearer subvention system and state economical support system
- abandoning political pressure on management
- Institutional performance assessing system
- strengthening of internal audit systems
- Compulsoriness of audit boards of companies and corporations
- Greater managerial responsibility towards accuracy of financial statements of the companies

The ideas presented show some of the expectations of business environment representatives, as resulted from the survey. The main concern of the business representatives refers not only to inadequate legislation but also to the inconsequence of administrating existent legislation.

Suitable business conduct determined by the global economical evolution, given the dramatic events having collateral effects that strongly affected global economy by widely spreading these effects is the reason why this severe legal regulation of corporate conduct was demanded. Under such circumstances specific normative legislation was elaborated, in order to prevent non-conventional risks – fraud, corruption, unmoral competition. The Oxley-Sarbanes Act adopted in United States of America on the 30-th of July, 2002 is the most relevant example of strong will to stop abusive corporate practice that might rapidly spread effects of unexpected amplitude. The law was adopted clearly stating the will "*to punish fraud and corporate corruption, to provide just legal action against evildoer and to protect interest of workers and stockholders*". The drastic penalties stated by the law are the measure of the impact that inappropriate business conduct can produce on economical, public and social life: criminal penalties stated by the law can reach imprisonment up to 20 years and the financial penalties can reach 20 million US dollars and refunding of bonus and other eventual incentives for those found guilty under the provisions of law.

Although proliferation of these new un-conventional risks seems to have become rather alarming in Romania, authorities do not show enough concern to consider, elaborate and implement adequate legislation. It is the major companies operating on international markets who have shown rapid reaction and understanding of the need to endorse conduct regulations that will allow benefic integration to this competitive and dynamic economical environment (the *Athena* project of Orange Romania provides internal audit of the company according to legal requests of Sarbanes- Oxley Act.)

Perception of companies on these new types of risks is rather different than the perception of the authorities, as the interviewed specialists point out. The survey revealed the urgent need for non-conventional risk governmental intervention in order to bring stability required for business environment in Romania. Lack of intervention in this area might be responsible for the dynamics of foreign investments recorded in Romania over the past few years, as shown in Table 1.

**Table 1: Direct foreign investments in Romania (net flows)**

Year	Direct investment (million EUR)	Reinvested profits (*over 10 million)	Net assets (million EUR)
<b>2003</b>	691	572	683
<b>2004</b>	3032	1452	699
<b>2005</b>	2688	1164	1361
<b>2006</b>	4159	2673	2227
<b>2007</b>	2220	1327	3703

<b>2008</b>	4873	-	4623
<b>2009</b>	1729	-	1759
<b>2010</b>	1824	-	396

Source: NBR, 2012

For the Romanian companies globalization brings important influence as far as economical and social situations are concerned – international business flows have increased insecurity, unemployment rates, and harsh competition. Competition forced companies to adapt management, strategies and policies in order to face a competitive environment for which these companies were not prepared for. Success of the winners was provided by quick adapting of strategies, operating and even organizational culture to the performing patterns of the competitors. Strategic alliances, joint-ventures, mergers, international funds access were the most important strategies adopted by Romanian companies in order to provide competitive force required to enter international markets and consolidate acquired positions.

Evolution of Romanian economy in the international context determines multiple changes to be accomplished over all the components of the economical structure, referring not only to the structure and functionality of the organization, considered as an economical entity. A new typology of organizations is visible, related not only to the nature of activity but mostly to innovation and knowledge providing adapting success. Differences between organizations match the ranking proposition of Artur & Little business consultants referring to medium-size and small-size organizations, increasing in number in competitive economies and, obviously, becoming more active in the Romanian economy too: Nicolescu (2001). The typology and the characteristics of new organizational structures of Romanian economy, adapted to changing economical environment shapes the distinct economical activity profiles as follows:

1. *Organizations based on new technologies* – which continue to use advanced technology in certain activity domains characterized by rapid technological progress; management of these companies should focus on activities organization.
2. *Organizations centered on market recess* – successfully provide added value of market recess; management has to focus on creativity and activities organization, with special care for competence management, long term vision and strategies.
3. *Technological leaders* – due to their performance, these organizations become leaders in a certain activity area by adequate promotion of own product; these companies generally focus on intelligence assets.
4. *Partnership development organizations* – usually acting as sub-contractors, participating to designing of new products; these companies usually value developing own intelligence assets by performing competence management, long-term vision and strategies, carefully organizing activities.
5. *Classical sub-contractants providing good performance* – sub-contractants for manufacturing Product generally designed by other companies ; these companies need strong organizational structures, stable competence management, long-term vision and strategies as well as carefully development of organizational culture and climate.
6. *Resilient organizations* – these organizations have successfully reacted and recovered from adverse market conditions effects; these companies should improve long-term vision and re-shape strategies and focus on creativity management, intelligence assets and a better activities organization.
7. *Reactive organizations* – the resilient organizations that have not succeeded in recovery due to the lack of long-term vision and strategies, a weak quality management and inadequate or neglected intelligence potential
8. *Passive, calmer organizations* – following their traditional routines, without important change and development ; these companies need firm intervention in the long-term vision and strategies areas as well as in organizational culture – such companies should also focus on intelligence potential, either inadequate or neglected
9. *Survivors* – showing low performance, their existence is under considerable threat; generally, such companies reveal major deficiencies in long-term vision and strategies, as well as in organizational culture.

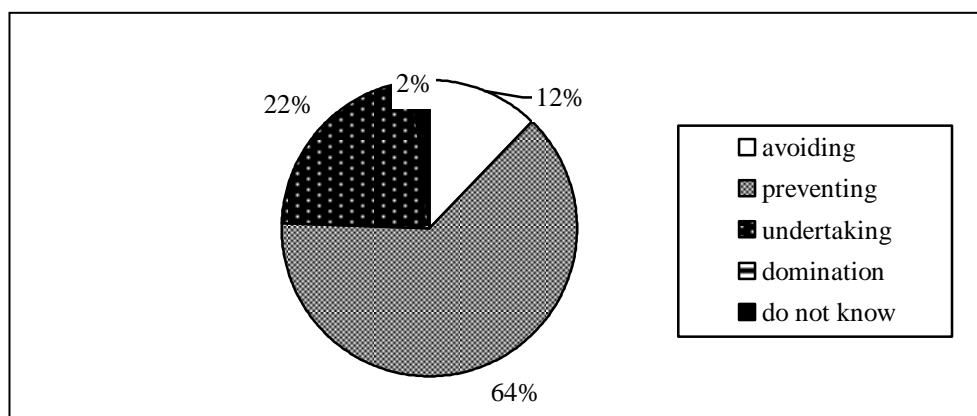
Innovative organizations largely benefit from access to the business networks that provide flexibility to adapt. Such business networking might be dominated by the equipment suppliers, or

might be marketing-oriented, or even complete innovational networks including universities and/or research centers financially supported by government entities. Such networking structures provide increased protection against risk by considerable lower costs for co-operation, better innovative opportunities not only for companies but also for individuals, greater technical, economical and organizational flexibility, shorter fabrication processes, more rapid and efficient trading of products and services, thus providing lower unit costs within the networking structure.

#### 4. What about the future?

The young generation of management specialists that should provide the next future of Romanian economy is unfortunately not very adequately prepared for risk management strategies coordinated by competent, well-defined, specialized structures of risk management, thus being not very well prepared for challenges of the future economy. A research was conducted by questionnaires administered to 50 students graduating management studies of the Faculty of Economic Sciences in Lucian Blaga University of Sibiu that inquired on the students perception upon risk, their willingness of undertaking risk, their needs for specialized education in the area; the research revealed that referring to willingness to undertake risk these managers-to-be evaluate themselves as follows (Figure 1):

**Figure 2: Attitude towards risk revealed by students**

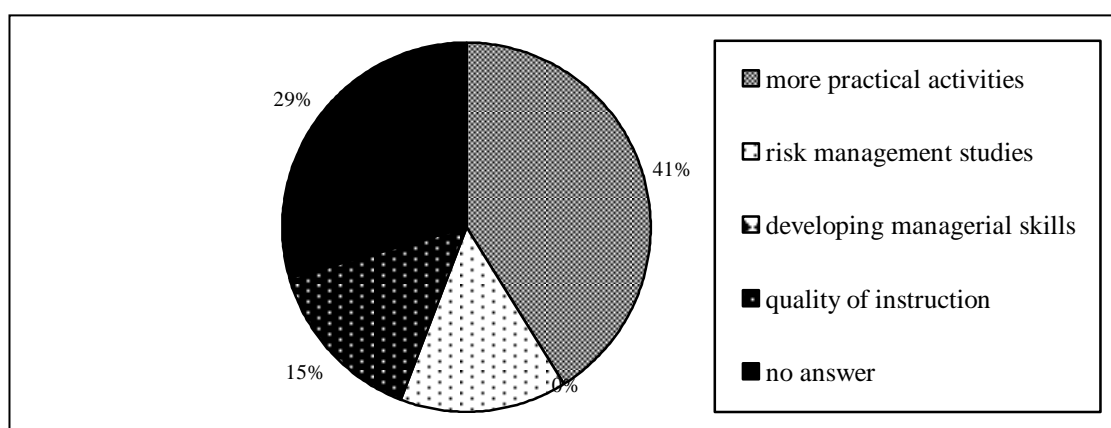


Source: Andron, D.R. *Research notes*

The importance of risk approach during their specialized studies is of certain relevance only for 12 % of the interviewed students, while 24% of the interviewed students have not identified any un-satisfied learning needs in the university studies curricula. This might prove not necessary a lack of importance of the risk management approach during specialized studies, but the lack of knowledge on risk management importance in the contemporary economics. Risk management is only contextually approached by economic university studies curricula; those students considering this approach enough satisfying for their studies are those students that are not aware, yet, of the importance of these studies for their academics background.

For the students that declared that their studies should more thoroughly approach risk management, the propositions they have formulated are numerous and coherent; the instructional needs of these students focus on well-defined areas and directions, such as:

**Figure 3: Instructional needs formulated by students**





Source: Andron, D.R. *Research notes*

A more detailed presentation of the instructional needs identified by the students shows not only mature thinking but also a serious approach of their future careers; they seem to be fully aware of their educational needs, the most important of these needs referring to:

- ✍ Competent teachers, seriousness of teaching process, modern teaching facilities
- ✍ More practical teaching activities
- ✍ Stimulating of team-work, problem-solving, projects
- ✍ Development of communication and analysis skills
- ✍ Development of leadership, collaborative and result-evaluation skills
- ✍ Development of responsibility for own decisions
- ✍ Connecting the academic education to practical stages in companies
- ✍ More specialized courses in human resource management, finance and trading management
- ✍ Exercising and training skills for risk prevention
- ✍ Case studies based on real situations to be competently analyzed and discussed
- ✍ Practical activities should focus on managing activities or groups

## 5. Conclusions

Economical evolution has not generated only the important winners but mostly serious survival problems for those companies that could not provide quick reaction in order to adapt to the business environment increasingly dynamic and selective. The solutions can be found inside the company, developing the human force towards an important intelligence and creativity asset as well as in developing more intense relationship between organizations, between own organization and development-research structures, educational system.

The survey conducted in the university confirmed the research results revealed by business environment: the human determinant of the economical evolution is clearly heterogeneous, obviously generating different approaches of the same themes in the decisional area. The survey conducted within business environment intended to provide solutions for directions of developing human resource of the organizations – as a main resource and important asset – in order to secure adaptability and competitiveness under new circumstances of the crisis operation of modern companies.

Economical environment is far from being a safe and stimulating context for business development in Romania. Beyond the possible and already traditional explanations based on preponderance of small companies in Romanian economy, low investment power, technical and economical gap, there is an essential issue that is not to be neglected – the legal leverage. Legal enforcement referring to corruption, fraud, economical criminality imposing business conduct standards is rather strong in USA and Europe; still, Romania, although a member of the European Economic Community is rather reluctant in elaborating - and more important, in implementing – prevention legislation that should provide safer business environment.

## 6. References

- Koenig, D. (2004) – *PRMIA Standards of Corporate Governance*, Risk Management Congress, Bucharest
- Nicolescu, O. (2001) – *Managementul firmelor mici si mijlocii*. Bucuresti: Editura Economica
- BNR (2012) Foreign direct investment in Romania (ISD). Yearly statistic survey. Available at [http://www.bnro.ro/Investitiile-straine-directe-\(ISD\)-in-Romania-3174.aspx](http://www.bnro.ro/Investitiile-straine-directe-(ISD)-in-Romania-3174.aspx).

# TRENDS AND CHALLENGES IN HUMAN RESOURCE MANAGEMENT AND ORGANIZATION PERFORMANCE

*BERCU Ana-Maria*

*Assistant professor/ Ph.D., Faculty of Economics and Business Administration/Department of Finance, Money and Public Administration, "Alexandru Ioan Cuza" University, Iasi, Romania, [bercu@uaic.ro](mailto:bercu@uaic.ro)*

**Abstract:** *In recent years, organizations have focused on developing human resources, on the management systems that enable them to achieve their strategic goals. The success of such systems is given by organizational culture, philosophy and mentality of people in the organization. The modalities of human resource management within the organization is the principal aim of our research, by identifying human resource practices in Romanian organizations and the impact on organizational performance results. We discuss the orientation function of human resources in organizations in Romania based on statistical and empirical data. The findings suggested that the incentives, training and information technology are strong related to organizational performance.*

**Key words:** performance appraisal, training, incentives, knowledge, technological innovation

**JEL classification:** M 12, M 53.

## 1. Introduction

Human resource management faces the challenge of bringing in the trained professional organization that meets their expectations and needs regarding work, but equally, to meet the requirements of organizational performance. Thus, there is a constant concern of managers to develop new ideas and concepts to improve human resource strategies and develop new perspectives that can be helpful in obtaining better results and improve organizational performance (Vigoda and Cohen, 2003). The relationship between human resource management and organizational performance has received wide attention from researchers in recent years (Sanchez Jimenez, Carnicer and Perez, 2007; Lin and Chen, 2007). As Mayo points out, 'people are a unique type of capital, they loan their human capital, their individual capability and commitment and their personal knowledge and experience to the firm,' adding, thus, value to themselves and, at the same time, affecting firm's performance (Diamantidis and Chatzoglou, 2011).

The purpose of our paper is to show which are the trends and challenges in human resource management and organization performance, taking into consideration the movements in social and economical framework generate by the global crisis. Also, it must be discuss which are the impact of the crisis at organization level and how can be used the organizational resources to obtain the competitive advantage to the market.

Our research **objectives** are:

- a. Shaping a state of knowledge in human resource management and report the performance of organizations, our research will be based on literature review, national and foreign country, which will justify our analytical approach and enable comparisons.
- b. Identify relationships between human resource management function and the relationship with the performance criteria.
- c. investigate whether certain components of human resource management, such as training, motivation, performance appraisal, incentives and information technology influence firms' performance.

The research is based by the statistical data from Eurostat, European Commission, National Council of Small and Medium-sized Private Enterprises from Romania.

## 2. Conceptualization of Human Resource Management

Numerous studies have shown that there is a positive relationship between human resource management and organizational performance in terms of profitability, net sales and market share

(Huselid, 1995, Schuler and Jackson, 1987). Theories on human resource strategies, financial and organizational implications on performance, economy and psychology studies (Becker and Huselid, 1998) have contributed to the development of major scientific movement aimed at highlighting the main interrelations between human resource management practices that can achieve organizational performance. Each of these theories has provided strong arguments for developing a universalistic perspective on human resource management practices and positive impact on organizational performance (Pfeffer, 1994, Delery and Doty, 1996).

Theory of strategic resources provides an important support for the universalistic approach to human resources. Difficulties tried economies in recent years have been felt in terms of implementing human resources strategies. Organizations must understand that their actions aimed at exercising control over the financial and material capital (equipment, raw materials, technology), but especially on human resources. Interest in these internal variables contributed to the development of theories of organizational resources (Wernerfelt, 1984). Organization's competitive advantage could be obtained only through optimal use of organizational resources and generate new values, rare and inimitable. They could only be the result of valuing the human resource organization (Barney, 1991; Pfeffer, 1994; Hisrich et al, 2008). Thorpe et al. (2005) showed that organizational performance is strictly related to the ability of entrepreneurs or managers to integrate knowledge from the perspective of the consumer market, supplier and stakeholder. Gold et al. (2001) showed that the organizational infrastructure, such as technology, structure and culture with knowledge acquisition, conversion, application and its protection are essential organizational capabilities with performance. They believe that these key infrastructures are able to lead to maximizing capital. Technological dimensions of knowledge management are part of the organization and include business intelligence, collaboration, distributed learning, knowledge discovery, as well as generation opportunity security.

Choy and Lee (2002) and Keskin (2005) have emphasized that human resource strategies are imperative for large organizations, while small organizations should strive for simplicity and to maintain a performance measurement system organizational focused and simple (Ali, 2003). Power of small organizations consist in human resource motivation, knowledge, skills, informal communication, less bureaucracy, better market orientation and production (Nootemboom, 1994). To perform competitive market, small organizations need a supportive culture, the sharing of knowledge and innovation assets. Human resource management and firm performance have become the foundation of a new era of managing diversified workforce in a globalized world. Hornsby and Kuratko (2003) believe that human resource management is a large firm phenomenon. Various researchers imply that small firms make less use of human resource practices than larger firms because of lack of time, financial resources, and the absence of HR experts (Bayo- Moriones and Merino-Díaz de Cerio 2001; De Kok and Uhlander 2001; De Kok, Uhlander and Thurik 2002).

### 3. Organization performance

One of the objectives of our study is to investigate whether some components of human resources such as training, motivation and performance measurement, information technology have impact on organizational performance. The answers to these questions could have relevant implications on business growth and market value of firms.

Performance can be interpreted as the bottom line of profit, to do better than competitors, increase efficiency of company and the specific objectives of the organization. Laitinen (2002) defines performance as the ability to produce a result based on a given dimension in relation to a target. Managers refer increasingly more firm performance as the key variable for obtaining competitive advantage in the market (Punick, 2005).

The concept of performance is reflected in the literature as successful result of an activity, action, and in economic field, with the meaning of profitability, productivity, efficiency.

In accordance with Annual Report on EU Small and Medium Enterprises on 2010/2011 (European Commission, 2011), the effects of crises are not equal across all Member States and, to explain these effects at the organizational level (on SMEs) must grouping the states. So, it can be categorized as follows:

- a. The *old* versus the *new* Member States;
- b. The *crisis* versus the *non-crises* countries.

If for the first group it is not necessary to make a discussion, for the second group to define crisis and non-crises countries merits some explanatory remarks. The crisis countries present a

stagnation of economy and negative GDP growth, unemployment rates, government debt as well as financial assistance package. The states with negative GDP growth rates for the last two consecutive years and with external assistance to stabilize the economy include (in April 2011) Greece, Ireland, Romania, Latvia, Portugal and Spain. But, the specific performance of the SMEs sector was considered and Romania left the group. Despite a negative GDP growth of Romania in 2010 (-1.3 percent forecasted by Eurostat in the European Economic Forecast – Spring 2011), was registered an increase of GVA and employment in the SME sector. The GVA of Romanian SMEs grew by 5.8 percent in 2010, while the microenterprises recorded 6.5 percent in the same period. In terms of employment, the sharpest growth was registered during 2010 in real estate, renting and business activities, 9.5, 7.2 and 9.2 percent respectively.

In conclusion, it should be noted that the small and medium enterprises represent the *engine* of the European economy during the crises and explain the capacity to maintain and develop internal strategies to use optimally the organizational resources.

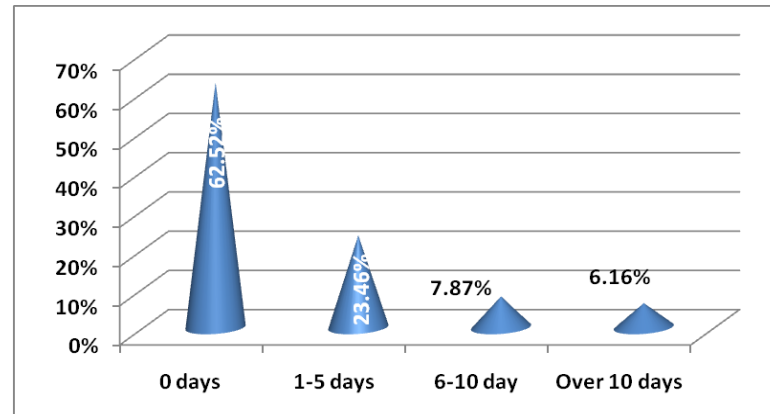
#### **4. Training and motivation of employees, technological innovation and organizational performance**

Human resource management is an area that is concerned with policies, practices relating to employee behaviour, attitudes and performance (Noe, Hollenbeck, Gerhart and Wright, 2006). An important role is held by the issue of training and professional development of employees. Training is a planned and systematic effort to modify and develop knowledge, skills, competencies and attitudes to learning experiences for a flexible and efficient labour (Buckley & SLG, 2004). Research has shown that employee training provides knowledge and skills necessary to perform work and, later, will contribute to organizational performance (Drummond, 2000). However, Peter Drucker (1995) stated that training is an expensive way to try to increase employee productivity. Effective training of employees contributes not only to acquire new knowledge and skills of the employee but also the organizational goals, satisfaction and productivity.

Therefore it can make the following hypothesis: *employee training is positively correlated with the performance of organizations.*

For Romanian SMEs training of employees is not a priority. Due to financial constraints faced by SMEs in Romania, employees access to counselling and specialized training is almost nonexistent, resulting in employee de-motivation and high mobility of labour (see figure 1 and figure 2). Innovation is stimulated when select skilled employees are given greater autonomy of action. But, the lack of financial resources constitutes an obstacle for the Romanian managers in order to sustain the training programs for their employees (even if in Romanian Labour Code is stipulated that the professional training is an obligation for the employers and must be respected). With workers unprepared to respond to all duties, without motivation and implication, cannot discuss about performance in organization. The results are de-motivation, a great mobility of work force and non-performance at the organisation level, but, also, at individual level.

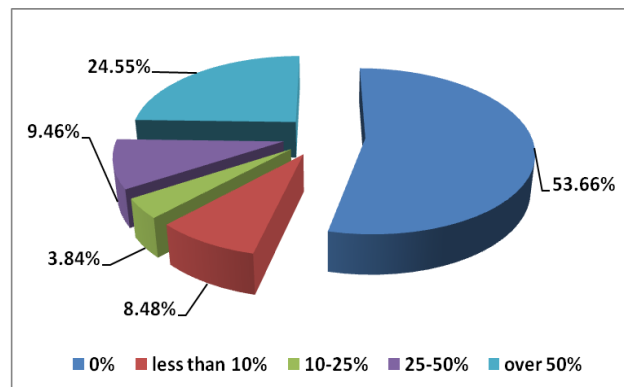
**Figure 1: Structure of SMEs in the length training employees**



Source: National Council of Small and Medium-sized Private Enterprises (2011). White Charter of SME in Romania, p. 232

The training programmes for employees constitute the way to develop skills, attitudes and behaviours to attend the organisational and individual performance.

**Figure 2: Percentage of firms that provided training programs for employees**

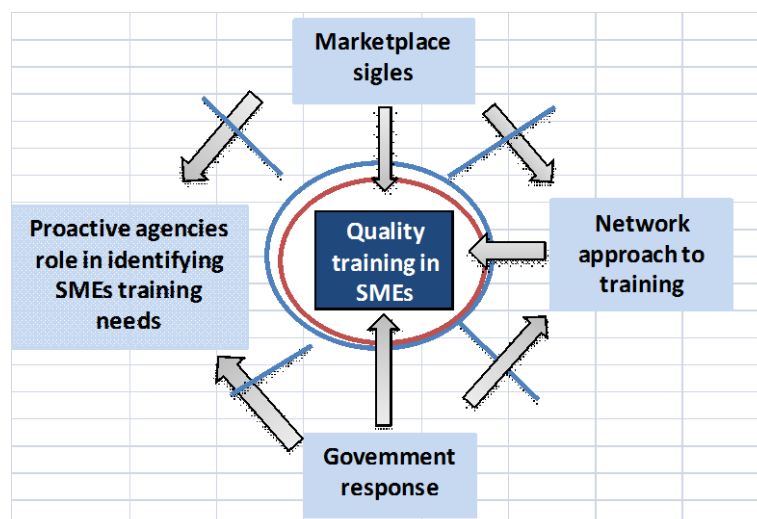


Source: our processing under the data give by National Council of Small and Medium-sized Private Enterprises (2011). White Charter of SME in Romania.

Despite the importance of maintaining knowledge and skills of the workforce, more than 50% of SMEs in Romania did not provide employee training programs (see figure 2). This is explained by the fact that small firms lack the resources (financial and human) to achieve a quality human resource management. This lack of resources may explain why small firms involved in a little training activity, while large firms do. Another reason for small firms participate less in training is that they fear competition to train for employees, because, then, to leave the organization.

At the European level, the quality training in SMEs is measures by market movements explained by new technologies, innovation, and knowledge. Governments must respond with public policies, strategies at national, regional and local levels, to sustain training and to identify the needs of SMEs and the expectation of stakeholders (figure 3).

**Figure 3: Quality training in SMEs**



Source: European Centre for the Development of Vocational Training (CEDEFOP), Research paper No. 4, Quality in VET in European SMEs, 2010, p. 102

Another important report highlighting human resource management and organizational performance is motivation. Harsanyi (1969) indicated that human behaviour can be analyzed by two components: economic gain and social acceptance. These two dominant interests is in fact an incentive for employees of organizations. Incentives are a complex arrangement to express and maintain working relationships between employees and employers. Armstrong's research (2001) show that incentives motivate people to achieve a level of performance and be more productive. Ian, Jim and Haper (2004) believe that incentives should be included in the strategies of the organization. In this context, the hypothesis can be formulated as follows: *using incentives for employees determine the performance of organisation.*

The remuneration of employees includes the following components (de Kok et al., 2011):

- Fixed wage: this includes any specific payment arrangements for overtime, working in shifts, working at night, working during holidays, etcetera.
- Performance-related payments: wage payments that are related to the performance of individual employees, groups of employees or the company as a whole, where performance may be measured either objectively (through observable measures of production) or subjectively (through evaluations).
- Employee (or fringe) benefits: various non-wage benefits for employees, for example employer-provided housing, health insurance, day care facilities and educational funding.

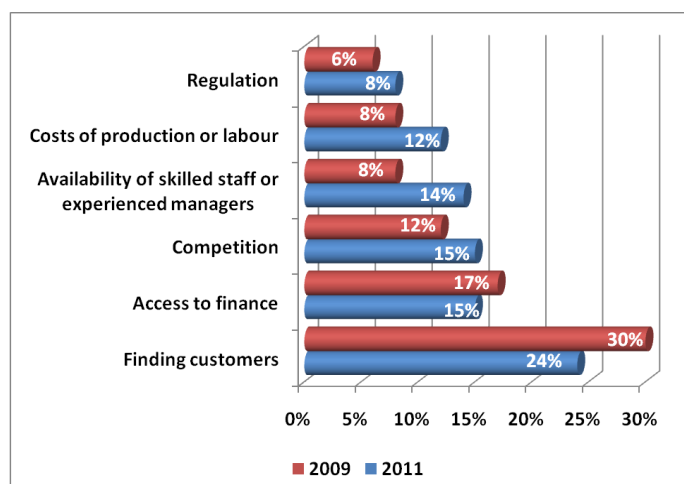
In accordance with the European Company Survey (2009) identifies establishments with performance- related pay schemes where wages are related to the performance of individual employees or groups of employees (team or department). The results show that the share of enterprises with such performance-related pay schemes in place increases from around 33% for enterprises with 10 to 19 employees, to 57% in enterprises with 500 or more employees. In smaller establishments, the schemes are more often applicable to the whole workforce, whereas in larger establishments they are more often limited to a specific share of the workforce.

Technological innovation is considered as a success factor in development organizations in achieving competitive advantage in the market. Technological capabilities of enterprises have long-term influence on firms (Hitt, Hoskinsson and Kim, 1997). Dave and Wayne (2005) have shown that people are able to identify new technologies and improve their efficiency and effectiveness in an effort to influence organizational performance. However, the favourite orientation of the organization to achieve results will lead to a low level of technological innovation in order to avoid uncertainty (Mumford, 2000). It can make the assumption that *information technology can be positively correlated with firm performance.*

As we show before, the innovation was the successful key to *extract* Romania from the crisis group countries, because the positive GVA and employment growth in 2010. The potential for innovation in SMEs has been hindered by some pressing problems, as: access to finance, cost of

production and labour, regulation, a shortage of qualified personnel and limited resources (see figure 4). Also, the innovation was block for SMEs by the inability to adopt and make use of training support. It is necessary to promote the continuous firm based training for lower skilled workers.

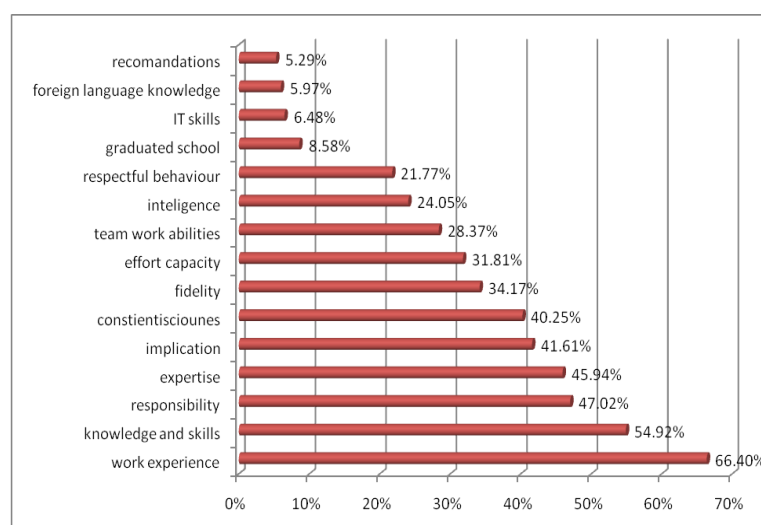
**Figure 4: Most pressing problems of the firms**



Source: ECB and European Commission, SMEs' Access to Finance Surveys, 2009-2011

The individual and organizational performance assessment criteria analysis is the relationship between human resource management and performance of organizations. Careers and career development objectives of the employees are defined in the organization in accordance with the aims and objectives of its performance. Lecky (1999) defined performance appraisal system as standard setting performance-based, specific tasks, identify and assess current performance. The result of performance evaluation is carried through into wage increases, promotion and advancement in office management planning. System performance evaluation of individual employees is a merit rating which should highlight the benefits for both the employee and employer. Evaluation criteria should be reviewed constantly to the organization's purpose, and expectations of employees. An incorrect evaluation of individual performance will lead to employee dissatisfaction and consequent negative effect on organizational performance. Hypothesis can be raised is: *evaluating employee performance is positively correlated with organizational performance*.

**Figure 5: Criteria for assessing the performance of employees**



Source: processing under the data give by National Council of Small and Medium-sized Private Enterprises (2011). White Charter of SME in Romania.

The criteria used by Romanians managers to measure the level of employee's performance are shown in figure 5. Work experience is the most evaluated criteria in recruiting and selection process, also, during the professional life of person (66.40%). Is followed closely by the knowledge and skills criteria (54.92%); for SMEs managers means reduced costs with specialised training programmes and short time to obtain positive results and to be productive. The responsibility, fidelity and expertise of an employee define the implication and motivation and constitute the criteria to maintain or to fire an employee.

The positive results for the organisation can be obtain if these criteria are known, explain and correctly applied to all employees and if the decision to promote or to fire a person was taken in accordance with the results of performance appraisal systems in organisation.

## 5. Conclusions and limits of research

Our research indicates that there is a significant relationship between human resource management and organizational performance, theoretical approaches are highlighted and confirmed by analysis of the statistical data provided by the European Commission, Eurostat and the National Council of SMEs in Romania. Theoretical assumptions made were supported by statistical data analysis and interpretation. Organizational performance can be sustained only by a well trained human resource. Lack of financial resources and a coherent strategy regarding the organization's investment in human capital lead to poor labour productivity and our performance in SMEs in our country. Incentives are an essential part of the remuneration and have very high importance on employee motivation. As revealed in January et al. (2004), incentives are technique of human resource management in order to obtain better performance.

Innovation and technology are essential in obtaining performance information. As technology increases the efficiency and time to carry out tasks is shorter. Mullin (2002) believes that training and assessment is a key element in developing and maintaining an organization's competitive advantage. For SMEs in Romania use performance analysis in terms of human resource management practices, such as training, use of incentives, motivation, information technology and innovation, entrepreneurs show a concern for real low labour utilization. Financial and legal factors are most difficult to overcome; as a result, the potential human is a key objective for managers of SMEs in Romania.

The limits of our research are determined by the failure of data to analyze the relationship between human resource management organisation performances in terms of indicators taken into account.

## 6. References

- Ali, Imran. (2003) *A performance measurement framework for a small and medium enterprise*. Dissertation PhD, University of Alberta, Canada.
- Armstrong, M. (2001) *A handbook of human resource management practice*, 8th Ed. Kogan Page Limited.
- Barney, J. (1991), *Firm Resources and Sustained Competitive Advantage*, Journal of Management, vol. 17, no 1, pp. 99-120.
- Bayo-Moriones, J.A., Merino-Díaz de Cerio, J., (2001) *Size and HRM in the Spanish manufacturing industry*, *Employee Relations*, Vol. 23 Iss: 2, pp.188 – 207
- Becker, B.E. et M.A. Huselid (1998) *High Performance Work Systems and Firm Performance : A Synthesis of Research and Managerial Implications*, Research in Personnel and Human Resources Management, vol. 16, pp. 53-101.
- Dave, U., & Wayne, B. (2005) *HRM value of proposition*, Boston, Harvard Business School.
- De Kok J.M.P., Vroonhof P., Verhoeven W., Timmermans N., Kwaak T., Snijders J. Westhof, F. (2011), *Do SMEs create more and better jobs?*, EIM Business & Policy Research, Netherlands.
- De Kok, J.M.P., and Uhlaner, L.M. (2001) *Organization Context and Human Resource Management in the Small Firm*, *Small Business Economics* 17 (4), 273-291.  
De Kok, J.M.P., Uhlaner, L.M., and Thurik, A.R. (2002) *Human Resource Management within Small Firms: Facts and Explanations*, Research Paper ERS-2003-015-STR., Zoetermeer: EIM/Erasmus University.



- De Kok, J.M.P., Verheul, I., van Praag, C.M. (2011) *Gender, risk aversion and remuneration policies of entrepreneurs*, [http://www.entrepreneurshipsme.eu/index.cfm/12.html?nxt=ctm\\_publicatie&bestelnummer=H201105](http://www.entrepreneurshipsme.eu/index.cfm/12.html?nxt=ctm_publicatie&bestelnummer=H201105), accessed in 25 of April, 2012.
- Delery, J.E. et D.H. Doty (1996) *Modes of Theorizing in Strategic Human Resource Management: Tests of Universalistic, Contingency and Configurational Performance Predictions*, Academy of Management Journal, vol. 39, no 4, p. 802-835.
- Diamantidis, A.D.; Chatzoglou, P.D. (2011) *Human resource involvement, job-related factors, and their relation with firm performance: experiences from Greece*, The International Journal of Human Resource Management, 22:07, 1531-1553
- Gold H. A., Malhotra, A., & Segars, H. A. (2001) *Knowledge management: An Organizational Capabilities Perspective*. Journal of Management Information Systems. 18(1):185-214
- Harsanyi, J. (1969) *Rational-choice models of political behavior vs functionalist and conformist theorist*. World Politics, 21, 21, 513-538.
- Hitt, M.A., Hoskinsson, R.E., Kim, H. (1997), *International Diversification: Effects on Innovation and Firm Performance in Product-Diversified Firms*, Academy of Management Journal, vol 40, no. 4, pp. 767-798.
- Hornsby, J.S., and Kuratko, D.F. (2003) *Human Resource Management in US Small Businesses: A Replication and Extension*, Journal of Developmental Entrepreneurship, 8, 73–92.
- Huselid, M. (1995) *The Impact of HRM Practices on Turnover, Productivity, and Corporate Financial Performance*, Academy of Management Journal, 38(3): 635–72.
- Ian, B. Jim, J., & Haper, W. (2004) *Human Resource Management*. New York Prentice Hall.
- Keskin, H. (2005) *The relationships between explicit and tacit oriented KM strategy and Firm Performance*. Journal of American Academy of Business, Cambridge Hollywood 7 (1), pp 169-176
- Kuratko, D. F., Hornsby, J. S., & Naffziger, D. W. (1997) *An examination of owner's goals in sustaining entrepreneurship*. Journal of Small Business Management, 35, 1, 24-33.
- Laitinen, E. K. (2002) *A dynamic performance measurement system: Evidence from small Finnish technology companies*. Scandinavian Journal of Management, 18, 65-69.
- Lecky, R. (1999) *Constructive appraisal*. Thompson Marshall Publishing, London.
- Lee, H. & Choi, B. (2003) *Knowledge Management Enablers, Processes, and Organizational Performance: An Integrative View and Empirical Examination*. Journal of Management Information Systems. 20 (1):179-228
- Lin, C. Y. Y., & Chen, M. Y. C. (2007) *Does innovation lead to performance? An empirical study of SMEs in Taiwan*, Management Research News, 30, 2, 115-132.
- Mumford, M. D. (2000) *Managing creative people: Strategies and tactics for innovation*. Human Resource Management Review, 10, 3, 313-351.
- Noe, R.A., Hollenbeck, J.R., Gerhart, B., and Wright, P. (2006) *Human Resource Management: Gaining a Competitive Advantage*, (4th ed.), New York: Irwin McGraw-Hill Companies Inc.
- Nooteboom, B. (1999) *Innovation, learning and industrial organization*. Cambridge Journal of Economics. 23(2):127-150.
- Pfeffer, J. (1994) *Competitive Advantage through People*, California Management Review, winter, p. 9-28. Rotterdam.
- Sanchez, A. M., Jimenez, J. V., Carnicer, P. D. L., & Perez, M. P. (2007) *Managerial perceptions of workplace flexibility and firm performance*. International Journal of Operations & Production Management, 27, 7, 714-734.
- Schuler, R., Jackson, S. (1987) *Linking Competitive Strategies with HRM Practices*, Academy of Management Executive, 1(3): 207–19.
- Vigoda, E., & Cohen, A. (2003) *Work congruence and excellence in human resource management. Empirical evidence from the Israeli nonprofit sector*. Review of Public Personnel Administration, 23, 192-216.
- Wernerfelt, B. (1984) *A Resource-Based View of the Firm*, Strategic Management Journal, vol. 5, p. 171-180.

- White Charter of SMEs in Romania, 2010-2011.

# BEST PRACTICES FOR CREATING AN EFFICIENT EXECUTIVE BOARD IN TIMES OF ECONOMIC CRISIS

**BODISLAV Dumitru-Alexandru**

*Ph.D. student, Faculty of Economics, Academy of Economic Studies, Bucharest, Romania,  
alexandru.bodislav@infinitemgroup.com*

**DINU Mircea Alexandru**

*Ph.D. student, Faculty of Economics, Academy of Economic Studies, Bucharest, Romania*

**Abstract:** *When listing a company it needs to transcend to a public company (for its shareholders) and a new decision making problem appears: implementing the strategy to maintain or to grow the new public company. How can the shareholders select the people that could represent their interests by creating the executive board and implementing a strategy for the long run considering the actual economic turmoil? In this research paper the selection process of an executive board will be designed and the case of Facebook's executive decisional system is represented as a particular case for the future development of a new-age company.*

**Key words:** efficiency, corporate governance, IPO, executive board

**JEL classification:** D21, G11, G32, G34, M11.

## 1. Introduction

The efficiency of a board is correlated with the aggregate abilities of the directors, but also with their powerful personalities that bring independence in the decision making process. The personality of a member of the executive board is molded through years of experience and genetic and epigenetic skills. The more experience brought to the board by its members, the bigger the chances to get reelected.

At a macro level, the board must contain an optimal mix that reconfirms the company's mission. As an example there could be offered the board of a new bank developed in a town with a population of 100.000, the members of the board must be *visible* individuals for the community, the same is valid for a healthcare insurance company that must include in its board medical doctors, administrative employees from near sited hospitals and auditors for creating the best ecosystem for the patient/client and a system that could be molded onto the company's development strategy (Colley et al., 2003; Bodislav, 2011). For a visible company at a national or regional level, it must include other chief executive officers (CEOs) from companies that are in the same industry and should bring an outside-in oriented approach to implement global solutions, but at specific level. A particular case is the case of not for profit organizations and their boards that are built to create trust for the financiers by keeping a high level of integrity and following the organization's mission. The board must assure a 360 degree experience for the company to reach its purposes and objectives.

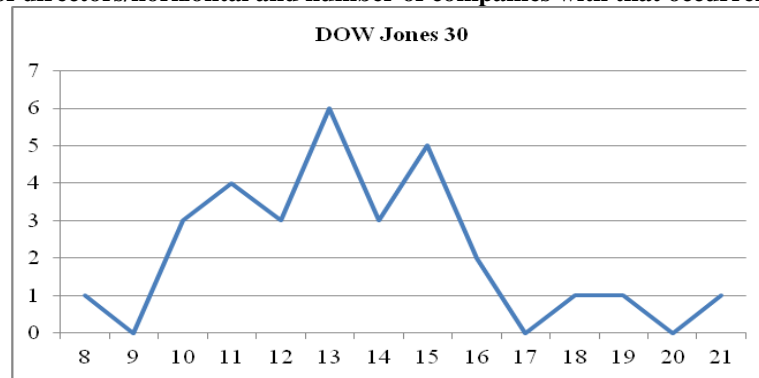
The double sided advantageous exchanges must be inserted in the board's strategy and must be part of the character of the individuals that are board members to ease the solving of possible crises. Because the fact that shareholders give to the board of directors the full authority and the governance of the company, they must be selected based on their character, ethics and business sense brought to the company. They must bring to the company an added value for efficiency, attracting new clients, increasing productivity or implementing new governance methods in the company, but with how much personality is brought to the board, the bigger the gap between their place as market leader then the followers.

### 1.1. The standard board structure

To validate a model for a board there was created a pool of companies from the 30 that are indexed in DJIA (Dow Jones Industrial Average) and 25 companies that are included in the S&P 500 index. This choice was made from the desire to validate a standard structure that includes the exponents of the innovation engine for global corporate governance, the United States of America, but demographic and geographic development created a standard that could be globally scaled. On the board sizes for the two groups of companies (DJIA or S&P 500) the results were similar, the most observed size for boards was between 9 to 16 members. In figure 1 (DJIA) and figure 2 (S&P 500)

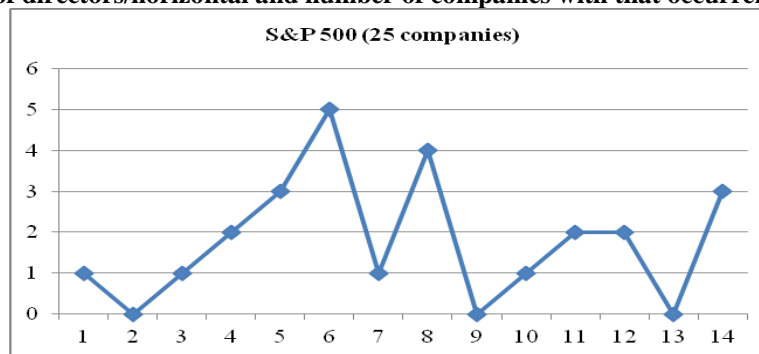
there is a graphic representation for the situation when the economy was in optimal parameters before the dot.com crisis and the actual economic crisis that started in the year 2007, the representation being for the year 2000 (Colley et al., 2003). The choice for the year 2000 was done by not simulating the actual board's selection from the companies that are indexed in the DJIA and S&P 500, boards that have as main purpose navigating through the crisis and maintaining market share, and in table 1 there is represented the average pay in the industry for 2011, year that is similar with the year 2000.

**Figure 1. DOW Jones 30 board structure distribution**  
(number of directors/horizontal and number of companies with that occurrence/vertical)



Source: Dow Jones database 2012

**Figure 2. S&P 500 (25) board structure distribution**  
(number of directors/horizontal and number of companies with that occurrence/vertical)



Source: S&P database 2012

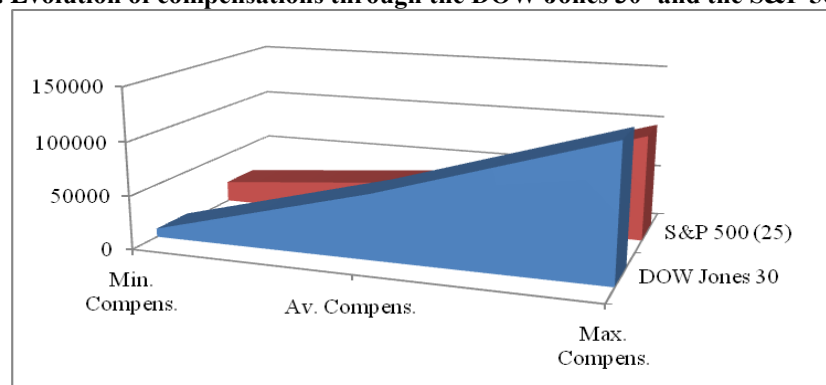
**Table 1. Compensations offered in the DOW Jones 30' and S&P 500' indexes**

Compensations	DOW Jones 30	S&P 500 (25)
Min. Compensations	8000	20000
Av. Compensations	61233	37409
Max. Compensations	125000	100000

• Average pay in U.S. dollars

Source: S&P database & Colley, Doyle, Logan, Stettinius, 2003

**Figure 3. Evolution of compensations through the DOW Jones 30' and the S&P 500' indexes**



## **1.2. Creating an efficient board**

After creating a board it must implement some simple communication principles with the middle management, and the absorption of talented people represents one of the strategic tasks needed for the companies' advance in human capital. The resulted performance of the new board has a short term validation period when the company goes through turbulent times, that is why quarterly performances can create pressure or built a not too clear image for the long term goal of the board when filtered with the shareholder's eyes. The only indicators that must be considered are those that stress the industry's general performance in which the company activates, and the trend line of the company must be near or above the general trend and on the medium term it must surpass the human capital's trend, the board has as purpose utilizing the available financial capital, be it by reinvesting it, be it by offering dividends to shareholders (Goldman Sachs, 2011).

## **2. Board selection**

### **2.1. The independence of board members**

Efficient boards are created with non-managing directors because they have as main job description protecting the interests of the shareholders, while the managing-directors are working for the shareholders, but they can directly benefit from the taken measures, because they aren't independent in taking decisions (Goldman Sachs, 2010). As a result, there should be created a board with two thirds non-managing members and one third managing members. Board members' independence isn't based only on the idea that they aren't non-managers, but they also follow the corporate governance' standards created by the New York Stock Exchange (NYSE) in 2002 through which close relatives that worked for a company in the last 5 years do not have the label of independent in the board of a company (S&P, 2012).

Board independence is quantified through the ratings and auditing resulted purposes and theoretical work efficiency of a CEO and as a 2<sup>nd</sup> tier effect on calculating compensations and evaluating performance in executive non-synchronizing between top and middle management. In case of takeover or acquisition, board independence becomes a critical factor, and some aspects aren't quantified, warning the return on investment or return on equity during process. In this moment, the non-independent board could be fired as a result of the conclusions taken by the executors and implementers of strategy, the top management of the company, and if the shareholders are in tune with the top management then the company is on the brink of vision or strategy' incapacity. These process problems and goal seek problems aren't found in companies with an independent board.

### **2.2. The interest of board members**

Choosing external board members is directly connected with their motivation. Non-managing members from American companies own small parts from it and growing the company is in tune with their personal perspective and this vantage point is supported by their reputation, their social status given by their results and by... fear of intended processes (Hambrick, Johnson, 2000). Regarding actual times, the real business people selected as board directors are the ones that have a long term sustainable vision, but their number is decreasing and the available time is limited and expensive, so they must be financially supported to remain mentally *engaged* for the company, this way they are following the same interests as the shareholders. As a plus in their involvement in the company, when they are selected they should invest a large sum of money to validate their good intentions, and when they sign the contract they should have stock options as a bonus.

Another component that must be clarified from the beginning is the procedure for keeping a CEO that reached the retirement age (around 70 to 75 years old). The advantages would be that an old CEO has superior know how in front of other candidates and he already owns a large stocks package, this way he is more motivated to grow their value. As a disadvantage there is the strong connection with the management level and this way there are some predispositions to cover their mistakes. A transition compromise was reached between the new CEO and the old CEO that consists of keeping the old one for another year after his mandate ends, the sole exception being that when a CEO has the stock majority, because if he leaves the company, he could destabilize it.

### **2.3. Choosing board members**

Choosing executive board' members should be based on the fact they must remain in those positions on undefined terms, but they are released from duty after being caught in a position of conflicts of interests, committing illegal acts or they discredited their image or their company's image. Despite these causes, they could be fired on economic assumptions, by not fulfilling their individual or board level tasks, through periodic direct audit. The economic situation in their business field is an important factor because a good director could be fired for exogenous reasons, their positions being filled by persons that thrive during economic crisis.

Board members' crossed evaluation could create hierarchical tensions. An alternative approach is of creating a board that is nominated for a finite number of years, but there could be created hidden costs because of the problematic selection if some members do not fit the positions well or the mandatory regulated replacement of a member that is efficient and this lose is expensive and hard to repair, to which there is added the cost for in depth know how of the new directors, the minimum lost period of time is of one year (for the prepared selected members). The most efficient procedure to keep or fire a board member is the one by collective cross evaluation which is validated through the governance necessities had by the company and that moment's economic situation. The efficiency problem of the board should have the possibility to resign from the board, before they are fired.

Selecting new board members must be based on transparency and independence from the internal games. This selection must be made for the good of shareholders, but in an objective way, because they could allow the selection to the actual CEO and this could be a not so wise decision. These practices aren't observed from outside, but they create pressure from the company's top management by not supporting the board and this way the corporate governance cannot be executed. For this problems to cease to exist we should rely on the nomination committee, which is responsible for offering a viable solution for new members that must stress high importance and morality.

For an efficient selection a pool of needed skills and gained experience should be created as minimum requirements for the candidates, and these must be in tune with the needs for development, consolidation, dimensioning or shifting of the company's business, to which is added the classical needs based on accounting, financing, marketing, operations and branch expertise were the company has its core-business, but if a board imports its CEO from other companies, he or she must come from another position if the company is from the same industry or from the same position if the company is in the same field.

After creating a candidate' pool, those candidates are filtered depending on the needs that need to be filled for creating a better board or for creating a better future strategy of the company that needs people with experience and skills different from the actual employees. The nomination committee will choose the right people and those will be filtered by the already validate members of the board.

The nominating committee of a big company (with big financial resources) is used to use headhunters, but during time the best solution was observed to be the one based on recommendations from the actual members of the board or other business partners, like: bankers, lawyers or clients. After the list is composed, the candidates are controlled after the tasks they fulfilled in their previous positions, to which is added the analysis of work relations with the supervisors, subordinates and colleagues from the companies where they were previously employed. After this control, a new list is created, those candidates on the new list are interviewed and evaluated for their implications in the business or social environment, to underline the fact that if they can bring media attraction for the company. Not for last, they are validated for the short list and those that own a part of the company or are related with the founders of the company, they are validated for the short list too, but if they are selected as board members they must promise that they will protect the interests of all shareholders, not only the interests of the interest group that they represent. After this process is checked, all candidates on the short list are placed in order depending on their status, the company's needs and the economic situation. All the recruiting process that is executed until that moment is done on a low profile, but with transparent principles (Colley et al., 2003).

#### **2.4. Due Diligence**

The next step is to investigate the situation, the status, the quality and if he or she could fill the position of board member, before signing the mandate contract. This procedure includes an interview of the candidate by the board members for all the names on the short list, to which is added an interview with the company's CEO. Due diligence is a parallel process with recruiting and is

executed with the candidates agreement, after his or hers acceptance on this practices, but also to evaluate his or hers position on the board for a possible future conflict of interests (Colley et al., 2003).

Recruiting possible candidates could be done from various perspectives, but in most cases, the ones proposed have the support of an actual member of the board and it could be seen as a campaign for the position of board member of the candidate through formal meetings with top and middle managers and informal meetings with the actual board members. During these meetings the candidate learns the company's strengths, weaknesses, opportunities and threats and an offer made for him or her for taking part in the board, in the meantime his or hers profile is evaluated to see if he or she is suitable for the position. After these meetings, the candidate must research the niche of executive management that must be filled for the company, what he can deliver for the company in exchange for the offered benefits, if the position has perspective or is created by the outside environment (if the company needs a new strategic approach because its negative trend in market share and the foresee of a future bankruptcy) and if he or she isn't in a conflict of interests from his or hers possible new position of board member (Bragg, 2011). If he or she accepts the application offer, he or she must pass the election process.

Directors' effective election is taken during the General Gathering of Shareholders (GGS) that is annually held. The shareholders choose the directors – members of the executive board, the elected ones are charged with legal liability to follow the interests of shareholders. In the case of interim directors, they are named by the board until the next GGS. Until the next GGS, the nominating committee and the actual board members develop a list with candidates equal in number with the vacant positions in the board, this way the election process is transformed in a validation process for the board position. The number of positions available is created by the bylaws, and the board positions must be created with specific terms, from 1 to 3 years and from the desire to easily get rid of those board members that aren't efficient (the procedure consists of a resignation), that is why the board selection process is important and must be done without skipping any steps of the recruitment process (Bragg, 2011; Colley et al., 2003).

## **2.5. Maintaining the board's efficiency on the long run**

Corporate governance is executed starting from the strategy developed for the long run and that is why the executive board changes could create shocks in the companies. Powerful boards evolve from a culture that is based on leadership and on efficient recruiting processes (identifying, recruiting, election/validation of proposal). Weak boards are represented by a CEO with a powerful personality, that dominates, with an exceptional leadership that has total control, and the board becomes only an expression of the theoretical needs presented in the statute and in the bylaws, the objectivity of a board cannot be estimated or forecasted, but the selection process sieves exceptional individuals from the ones that are just well connected, and this sieve doesn't stand just as a responsibility of the nominating committee, but also a responsibility of the top management and of the auditor, but also in the financial component: they are the main beneficiaries from direct compensations and from the created stocks flow (here including the takeovers of other companies or being under a takeover from another company).

An intangible component that could create advantages or disadvantages in the company, it is represented by the dominant personality. Some companies that benefit from having on board these types of personalities that transform the companies according to their personalities. On NASDAQ are listed more than 5000 companies, which have CEOs that have an average run of 7 years, but each year 700 CEOs are replaced, so it results that a CEO recruiting process is started 3 times during a working day. Most CEOs pass through the life of a company by being mediocre or by keeping the general trend line of the company and of the economy (muddling through), but there are some deviations from the average, the ones that fail in the CEO position (by fraud or incompetence) and the ones that transcend into superstars: they lead the company to new peaks (Steve Jobs – Apple), they bring stability and above average growth on the long run (Warren Buffet – Berkshire Hathaway), they reestablish corporate governance for an extraordinary company, but that cannot face the economic turmoil (Alfred P. Sloan – General Motors Company, Allan Mullaly – For Motor Company), they strengthen the vision or the company's position (Jack Welch – General Electric) and have an approach of main engine for economic growth (Michael Eisner – Disney, Steve Jobs – Pixar). Through their results above the initial possibilities of the company, by using ruptures in leadership and innovation, they become the board, being responsible for strategic movements, like finalized

acquisitions, selling suboptimal used assets (before they transform into liabilities) or by planning the successor selection (the case of Jack Welch, Steve Jobs and Warren Buffet).

Another way to take over the board is the one through which the CEO brings into the board his supporters on which he can rely when a vote is needed. This fact can lead to dictatorship in the company, which cannot be stopped by the shareholders, a perfectly legal situation that appears often in the United States because there aren't procedures that could allow cancelling more than one director or board member at the same time. The sole procedure is the legal one and the one founded on a takeover by lowering the company's value through the measures taken by the board, but the one that involves a takeover isn't valid if there are stipulated measures like the "poison pill" in the company's bylaws (Colley et al., 2003).

The dominant personality of a CEO leads to capturing the entire executive power from a company. Until now there were presented cases met in open, listed companies, but there are some companies that are *quasi-public* companies that are controlled by a private company, but it is audited and framed by a state owned company. In this case there are met the pre IPO companies (before their Initial Public Offering) when a part of their shares are sold to some investors or offered to employees, as example we have Facebook's case, which before its listing, this way a pseudo-valuation is created for the company. Another method is that through which a private company wants to become public, but through a merger with a listed company, this way it lists itself without an IPO, but the owners of the private company transform into the majority shareholder of the new entity created through merger.

A quasi-public company can be considered a company led by a CEO that has the power to select some members of the board, this way assuring himself the decisional majority (this procedure is called *entrenchment*), this way the entire decision on the future strategy of the company depends on the CEO's business sense (Bragg, 2009; Colley et al., 2003).

The studies done on this phenomenon of quasi-public companies are few and do not have a common conclusion, but about their boards it is known the fact that small boards (with maximum 10 members) that are formed by non-managing directors (outsiders) are subordinated to the companies that they represent or from where they are imported. Facebook has before its IPO 7 members in the executive board, 2 of them are outsiders, but the real situation is that the entire development strategy is executed by only one person (the company's CEO and main shareholder, Mark Zuckerberg – 28,4 % of the company). In the quasi-public companies we have board members that follow long term development and they have small paychecks and non-significant stock options (the case before an IPO). For the directors that are members in an executive board the financial stimulants (incentives) are not real because they are already rich, but the company as an entity could represent an agenda on the long term.

### **3. Creating shareholder and board' structure for Facebook – the IT&C IPO with the biggest valuation in history**

Participating as an investor on the Facebook IPO, is actually a bet on the best behavior, the flair and morality of its CEO, Mark Zuckerberg.

The Facebook company is valued at 75 to 100 billion dollars with a listing price of 50 billion dollars (5 billion dollars for 10 % of the company), but the deal structure for the corporate governance system shows a corporate dictatorial system. According to the IPO documentation listed at the Securities and Exchange Commission, the CEO, Mark Zuckerberg, will have total control over one of the biggest companies listed on the New York Stock Exchange. The proprietary shareholder system is a dualist system, the shareholders created from the listing will own Class A shares, each having the voting power of 1 vote per share. Facebook employees and pre-IPO investors own Class B shares that have 10 votes per share (S.E.C., 2012).

Mark Zuckerberg owns after 8 years from creating the company 28,4 % from the company in Class B shares, through them he can partially control the company, but total control is achieved through the fact that he is authorized by the co-founder of Facebook, Dustin Moskovitz and by the first president of the company, Sean Parker, this way he adds another 28,7 % of voting power. After listing the company, the CEO will have 57,1 % voting power with the tendency of growing his control because some of the investors will exit the business or already did their exit on the secondary market (S.E.C., 2012). In the future any changes done in the company must be done only with Zuckerberg's agreement as acting CEO. Other differences from an already listed company are the ones that involve the selection system created for the executive board. Facebook doesn't have in the corporate structure of the executive board a nomination committee and this way the independent character of the board



doesn't exist, because through voting power, the CEO can fire any director/board member at any time, and the CEO has in his job description the role of nominating committee.

Going back to Facebook's shares, if shareholder that has Class B share transfers them (sells or donates them) then they are automatically converted into Class A shares, this way the CEO, Mark Zuckerberg, can reach a voting power of 80 – 90 %. Even if Mark Zuckerberg sells a part of the shares owned, if he holds 9,1 % from his Class B shares he can control the board with this small ownership, so from here we can foresee a long period of ruling the company for Zuckerberg as CEO.

This problem of shareholder corporate governance created in a dualist system is met at another IT&C corporation, the Google' company, where the founders Sergey Brin and Larry Page implemented a similar voting structure, but at Google there are two individuals with complementary personalities that rule the company. In the year 2011 other companies from IT&C sector listed, like Groupon, Zynga or LinkedIn that have a similar shareholder structure, a dualist system. The control is executed in these companies as following: 19,7 % for Groupon, 37,4 % for Zynga and 21,7 % for LinkedIn, but these companies are not valued at the same level with Facebook.

In 1986, when the Microsoft Corporation was listed, Bill Gates owned 49% of the shares, but the shareholder structure is a simple one, and selling shares influenced in a direct manner his voting power in the company.

Facebook is going to transform after its IPO into one of the biggest companies in the world, above Amazon, Kraft Foods and Goldman Sachs, companies that needed years, decades or hundreds of years to reach this level of valuation in their industries.

In Facebook's case we talk about an active CEO/player, that solely controls the corporation, this fact isn't a bad thing, because his vision was the one that led the company from 0 to 50 billion dollars. The situation before the IPO is the following one (Trefis, 2012):

**Figure 4. Facebook Income Structure & Market Capitalization**



Source: data processed by the author using Trefis database and Goldman Sachs reports

#### 4. Conclusions

In brief, American corporate thinking on board structure can be summed up to:

- Best boards are formed with directors that are shareholders too (the bigger the share owned, the bigger the attention offered to the company);
- Best boards are the ones that have a long term strategy to grow the company's value for the shareholders;
- The board must understand the company's economic standing (inside-out and outside-in) and it needs to evaluate if they can maintain, sell or reorganize a business unit, but by considering the long term vision, not only the regarding the moment's demand and supply of shares on the stock market;
- Recruiting talented people must be a high priority for the board, and the company's and shareholders' interests must be protected by redeeming large packages of shares, but not by offering stock options, that do not have any risk attached to them for the employee, but by direct redeeming from the stock market;

- Capital distribution and performance control are the evaluating factors that frame and determine the performance of the company's governance and the performance of its creator, the board of directors.

For how long the company keeps its work procedures for corporate governance simple and transparent, it will function at an optimal level. The companies with the best performance are the ones that align the interests of shareholders with the board's interests. Listed companies have a corporate governance system different from the quasi-public companies or from the private ones because they have to face different problems, but those problems can be solved by maintaining the mission statement and its goals, by aligning the management and the governance in tune with the shareholders' interests.

Control and power of a board are created through pathways:

1. Through the bylaws that specifies the number of members that form the executive board, the path to approach a decision in the board and for what situations are needed simple voting or super-majority voting procedure;
2. Who influences who and the coalitions created inside the board are based on premises (internal or external) or on an interest group? What directors have the decisional control, the internal ones (or the managing directors) or the outsiders (imported from other companies or non-managing director), and if they impose their vantage points through force, personality or by offering/abolishing favors.

These kinds of corporate politics are often met in executive boards and determine the efficiency of the board from the financial perspective, but also in maintaining legal requirements on the stock market, in front of their regulators (S.E.C., as example) and in front of the shareholders.

## 5. Acknowledgments

This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/107/1.5/S//77213 "Ph.D. for a career in interdisciplinary economic research at the European standards".

## 6. References

- Bodislav, A. (2011) The Birth of the Regulated Company in the Macroeconomic Environment, *Theoretical and Applied Economics*, no. 6 (559), p. 129 – 140.
- Bragg, S. (2011) *The CEO Corporate Leadership Manual. Strategic and Analytical Tools for Growth*. Hoboken: John Wiley & Sons.
- Bragg, S. (2009) *Running a Public Company. From IPO to SEC Reporting*. Hoboken: John Wiley & Sons.
- Colley, J.; Doyle, J.; Logan, G.; Stettinius, W. (2003) *Corporate Governance*. New York: McGraw-Hill.
- The Goldman Sachs Group (2011) Corporate Governance at Goldman Sachs, *Goldman Sachs Key Facts*.
- The Goldman Sachs Group (2010) Policy Regarding Director Independence Determinations, *Corporate Governance Policies*.
- Hambrick, D.; Johnson, E. (2000) Outsider Directors with a Stake: The Linchpin in Improving Governance, *California Management Review*, 42 (4), p. 108 – 127.
- Securities and Exchange Commission (2012) Facebook's 10k form, available at [http://www.sec.gov/Archives/edgar/data/1326801/000119312512034517/d287954ds1.htm#toc287954\\_2](http://www.sec.gov/Archives/edgar/data/1326801/000119312512034517/d287954ds1.htm#toc287954_2)
- Standard & Poor's database (2012) GCIS scorecard, available at <http://www.standardandpoors.com/indices/sp-500/en/eu/?indexId=spusa-500-usdof--p-us-1-->
- Trefis database (2012) Description for Facebook, available at <http://www.trefis.com/company?hm=FB.trefis&from=search#/FB/n-0003?from=sankey>

# A MULTIREGIONAL ANALYSIS OF THE ENTREPRENEURSHIP IN ROMANIA'S RURAL AREAS IN THE CONTEXT OF EUROPEAN FUNDING OPPORTUNITIES

**BURCEA Marin**

*lecturer,*

*Faculty of Administration and Business,*

*Department of Economics and Public Administration University of Bucharest, Bucharest, Romania,  
marinburcea67@yahoo.com*

**Abstract:** One way to overcome the economic crisis is that of taking advantage of the business opportunities and financing within the regional development. The aim of the present paper is to underline the importance of being informed about the business opportunities and analyze the results of a research related to the cooperation between parties interested in local and regional development. A set of two hypothesis has been tested using information from a survey questionnaire based. The results of our research underline that the relationship established between the business environment and public local authorities, ownership associations are influenced by the access to information on financing opportunities and obtaining European funds.

**Key words:** entrepreneurs, potential entrepreneurs, public administration, European funds, regional development

**JEL classification:** M13; R58; O18; P25

## 1. Introduction

The importance of entrepreneurship for the development of national and regional economies has been widely recognized in the business literature (Tamasy, 2006). Entrepreneurship represents a possible lever both for regional growth and national development in Europe, and has a great impact upon human life (Braun, Diensberg, 2007). In essence, regional success is the result of the regional capacity to exploit the local resources (e.g., financial resources, natural resources, social and human capital) by using institutional capacities, community participation and intangible aspects (e.g., entrepreneurship, cultural identity) and facilitating local and foreign direct investments (Pezzini, 2003).

Particularly in the rural regions, there is typically little business activities to provide enough opportunities for the residents (e.g., jobs), and only "a proactive stance towards entrepreneurship can dramatically increase the number of businesses that start up and expand" (Holley, 2005, p. 7). From this point of view Romania constitutes a valuable example because approximately 45 % of the total population lives in the rural regions. Romania provides in the rural areas a wide range of attractive natural and cultural opportunities in order to be exploited by entrepreneurs (Nemirschi, Craciun, 2010). That is why the interest for rural entrepreneurship in Romania has been enhanced especially in the last decade by the specific programs implemented by the European Union for the development of remote areas (Gurau, 2009). In spite of the fact that in Romania the rural entrepreneurial activity is rather low and the rural areas are rather characterized by high conservatism (Tudor, 2008), there is a huge potential for its development in these areas. In this respect the project "Rural Entrepreneur", 2010-2012, run by the National Foundation of Young Managers (FNTM) co-financed from the European Social Fund, has been a trigger for the development of rural entrepreneurship in Romania.

Having as a starting point the above statements, some questions arise about information related to business and financing opportunities and business environment in rural areas, also about how the interested parties collaborate on local and regional development. The questions are:

- Is there any information deficit among rural entrepreneurs on business opportunities?
- To what extent have European funds been used by rural entrepreneurs?
- Which is the collaboration level of the parties interested in local and regional development?

In order to have the answers a methodological approach has been used based on a sociological survey (Rotaru și Ilut, 2006).

The first part of the paper deals in detail with the research methodology. The results are analyzed and interpreted in the second part which deals with the main questions from the questionnaire. The final conclusions follow.

## 1. Research methodology

The aim of the paper is the assessment of cooperation between the players interested in rural development in the targeted regions. The objectives are:

O1. Identify the information level of the entrepreneurs and potential entrepreneurs related to business opportunities in rural areas;

O2. Identify to what extent the European rural funding opportunities are used by the rural business environment;

O3. Measure the cooperation degree of the players involved in rural development;

Having the objectives clearly stated, the following hypothesis have been formulated:

- The better the entrepreneurs and potential entrepreneurs are informed about business opportunities, the more enhanced is the cooperation with the relevant players involved in regional development;

- If the economic players have used European funding, the cooperation with the parties interested in regional development is greater;

The study involved carrying out a questionnaire on four distinct development regions: South-Muntenia, South-West, North-West and West. The number of respondents: 1,448 aged 18 and over. Table 1 shows the distribution of respondents sample.

**Tabel 1: Distribution of respondents according to region and their entrepreneurship status**

Development region	Entrepreneurship status		Calculation basic number
	Owner / self employed	potential entrepreneur	
South-Muntenia	24.5%	75.5%	554
South-West	17.6%	82.4%	279
North-West	19.9%	80.1%	337
West	25.9%	74.1%	278
Average on the 4 regions	22.4%	77.6%	1448
Calculation basic number	324	1124	1448

The sample size of the survey consisted of people interested in using European funds and who attended the Young Managers National Foundation Conference held in February – April 2011. The YMNCF Conferences were advertised in the local and national media and benefited from the support of a national network of consultants who informed about the venues of the conferences in the 4 regions. Public local authorities also supported the organization of the conferences.

The sample size was picked at random. The selection process of the respondents was achieved through a statistic stance from the conference participants. Thus the sample is representative for the entrepreneurs and potential entrepreneurs who are interested in European funding opportunities of the 4 development regions and the margin of error is +/- 2.6% at a reliable level of 95%.

The interviews were *face-to-face* and were carried out in an environment specially equipped to enable confidentiality. The survey was carried out by the author of the paper. It also had the support of professors Dumitru Sandu and Sorin-George Toma from the University of Bucharest, specialists in regional development and entrepreneurship. The questionnaires have been stored in a data base and syntax of answers variables and codes labeling has been created. Information has been processed using Statistical Package for Social Sciences (SPSS). 12.0. Figures and graphs are in Microsoft Excel.

## 2. Results of research

**2.1.** The first tested hypothesis refers to the correlation between the information degree about business opportunities and cooperation with the players relevant to the regional development. The access to information affects the collaboration with the people involved in local and regional development. The rural owners deem themselves less informed about business opportunities than those from urban environment (71%). 18.1% consider they are just rightly informed and only 1.7 % consider they are better informed than their urban peers. Apart from the people from the West development region, at a

greater extent the owners consider themselves less informed than those who say they want to start a business (see Table 2).

**Table 2: Perception of the rural entrepreneurs and potential entrepreneurs regarding business opportunities in the area (%)**

Development region	South-Muntenia		South-West		North-West		West	
Entrepreneurship statute	Owner / self employed	potential entrepreneur	Owner / self employed	potential entrepreneur	owner / self employed	potential entrepreneur	owner /self employed	Potential entrepreneur
Better informed than those from urban areas	2.2	2.4	0.0	1.3	1.5	0.7	0.0	2.4
Just rightly informed as those from urban areas	18.4	21.1	14.3	15.7	19.4	13.3	23.6	19.4
Less informed	73.5	68.4	77.6	73.9	71.6	74.4	65.3	67.0
Do not know	5.9	8.1	8.2	9.1	7.5	11.5	11.1	11.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Calculation base	136	418	49	230	67	270	72	206

Those who consider themselves just rightly informed are very pleased with the APL collaboration, ownership associations and central public authorities (see Table 3).

Entrepreneurs and potential entrepreneurs from rural areas who say they are less informed are rather dissatisfied with local public authorities and ownership associations.

**Table 3: Satisfaction degree towards the parties interested in regional development \* access to information related to business opportunities**

Satisfaction degree	Relationship with	Better informed	Just rightly informed	Less informed	Do not know
Very satisfied	APL	37.5%	27.9%	21.2%	9.0%
	Ownership association	8.3%	11.5%	6.5%	3.7%
	APC	4.2%	11.8%	5.4%	
Satisfied	APL	25.0%	36.6%	37.7%	17.2%
	Ownership association	33.3%	40.8%	38.2%	17.9%
	APC	25.0%	24.4%	25.0%	12.7%
Dissatisfied	APL	8.3%	9.2%	14.8%	5.2%
	Ownership association	12.5%	9.5%	11.7%	4.5%
	APC	4.2%	13.4%	14.0%	7.5%
Very dissatisfied	APL	4.2%	6.9%	5.8%	3.0%
	Ownership association	4.2%	3.8%	2.3%	1.5%
	APC	4.2%	3.8%	6.9%	0.7%
I have not had any collaboration with them until now	APL	25.0%	19.5%	20.4%	65.7%
	Ownership association	41.7%	34.4%	41.2%	72.4%
	APC	62.5%	46.6%	48.7%	79.1%

The formulated hypothesis is confirmed. Improvement of the relationship between the parties involved in regional development can be achieved only if equal access to business opportunities is being provided.

**2.2.** The second tested hypothesis relates to the use of European funds and collaboration with parties interested in regional development.

**2.2.1** Testing the hypothesis at sample level. The data confirm that there are not dramatic differences between the number of accessing pre-adherence funds and post-adherence ones until the date of the survey. It emphasizes a certain practice, a pattern how companies accessed European funds (see Table 4).

**Table 4: Access to non-refundable financing in rural areas: pre-adherence and post-adherence funds(%)**

	<b>Have you accessed any non-refundable pre-adherence fund (PHARE, SAPARD, ISPA) with your company or another one?</b>	<b>Have you accessed any post-adherence fund?</b>
<b>Yes, I got financing</b>	12.9	12.3
<b>Yes, but I have not got the funds</b>	5.7	4.4
<b>I have not tried</b>	81.4	83.3
<b>Total</b>	100.0	100.0
<b>Number</b>	1448	1448

We can see that the business environment of the South-West region had taken the least interest in accessing pre and post-adherence funds compared to other regions (see Table 5). There the success rate was lower than in other regions.

**Table 5: Access to non-refundable financing in rural areas: pre-adherence and post-adherence funds on development regions firmelor cu interes**

<b>Have you accessed any non-refundable pre-adherence fund (PHARE, SAPARD, ISPA) with your company or another one?</b>					<b>Have you accessed any structural fund (after the accession to EU)?</b>			
	<b>South-Muntenia</b>	<b>South-West</b>	<b>North-West</b>	<b>West</b>	<b>South-Muntenia</b>	<b>South-West</b>	<b>North-West</b>	<b>West</b>
<b>Yes, I got financing</b>	14.8%	7.9%	10.7%	16.9%	12.8%	6.1%	10.4%	19.8%
<b>Yes, but I have not got the funds</b>	6.1%	4.7%	5.6%	6.1%	5.1%	4.7%	4.2%	3.2%
<b>I have not tried</b>	79.1%	87.5%	83.7%	77.0%	82.1%	89.2%	85.5%	77.0%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Our hypothesis underlines the relationship between access to European funds and public local authorities, central and professional organizations. One can see that there is a direct relationship between access to pre-adherence funds and collaboration with local authorities, central and business ownership associations. The closest collaboration has been with APL – 93%, followed by business ownership associations – 81.7% and public central authorities – 70.1%.

Also, satisfaction degree related to the relationship with the three institutions is increasing. The greatest satisfaction and the closest collaboration is with APL: 74.3% (see table 6). of those who obtained a pre-adherence non-refundable fund, then business ownership associations – 67.9% (see table 7). and public central authorities – 43.9% (see table 8).

**Table 6: Correlation between satisfaction degree and colaboration with APL and obtaining a pre-adherence fund**

<b>Satisfaction degree</b>	<b>Yes, I have got pre-adherence non-refundable financing</b>	<b>Yes, but I have not got any pre-adherence fund</b>	<b>I have not tried to access such funds</b>	<b>Weight total sample</b>
<b>Very satisfied</b>	31.0%	19.3%	20.2%	21.5%

<b>Satisfied</b>	43.3%	45.8%	33.4%	35.4%
<b>Dissatisfied</b>	12.8%	12.0%	12.8%	12.8%
<b>Very dissatisfied</b>	5.9%	7.2%	5.6%	5.7%
<b>I have not had any collaboration with them until now</b>	7.0%	15.7%	27.9%	24.5%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%

**Table 7: Correlation between satisfaction degree related to the collaboration with the ownership associations and obtaining pre-adherence funds**

<b>Satisfaction degree</b>	<b>Yes, I have got pre-adherence non-refundable financing</b>	<b>Yes, but I have not got any non-refundable pre-adherence fund</b>	<b>I have not tried to access such funds</b>	<b>Weight total sample</b>
<b>Very satisfied</b>	18.7%	3.6%	5.6%	7.2%
<b>Satisfied</b>	49.2%	54.2%	33.5%	36.7%
<b>Dissatisfied</b>	12.8%	13.3%	10.1%	10.6%
<b>Very dissatisfied</b>	1.1%	6.0%	2.5%	2.6%
<b>I have not had any collaboration with them until now</b>	18.2%	22.9%	48.2%	42.9%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%

**Table 8 : Correlation between satisfaction degree related to the collaboration with public central authorities and obtaining pre-adherence funds**

<b>Satisfaction degree</b>	<b>Yes, I have got pre-adherence non-refundable financing</b>	<b>Yes, but I have not got any non-refundable pre-adherence fund</b>	<b>I have not tried to access such funds</b>	<b>Weight total sample</b>
<b>Very satisfied</b>	13.4%	8.4%	4.7%	6.0%
<b>Satisfied</b>	30.5%	22.9%	22.8%	23.8%
<b>Dissatisfied</b>	17.1%	22.9%	11.8%	13.1%
<b>Very dissatisfied</b>	9.1%	8.4%	5.0%	5.7%
<b>I have not had any collaboration with them until now</b>	29.9%	37.3%	55.8%	51.4%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%

Those who obtained European funds had a better collaboration with the public local and central authorities than those who accessed pre-adherence nonrefundable financing. Collaboration with APL rose from 93% to 96.1%, business ownership associations from 81.7% to 84.8% and public central authorities from 70.1% to 74.7%.

Satisfaction degree (very satisfied and satisfied) towards collaboration with APL has increased slightly from 74.3% to 75.91%. A higher satisfaction is towards the relationship with the business ownership association from 67.9% to 71.9% and with public central authorities from 43.9% to 46.1%.

Those who tried to obtain a European financing and did not succeed are less satisfied with their relationship with APL than those who tried to obtain pre-adherence funds: 61.1% as opposed to 65.1%. The same happens with business ownership associations 57.8% to 53.1%.

Satisfaction degree towards the collaboration with public local authorities of those who tried to obtain a pre-adherence fund is almost the same with those who wanted a post-adherence financing. The satisfaction feeling is strongly correlated with an expectation feeling. In other words, the expectations from the part of the public local authorities are greater than from the part of the Government and other central authorities.

The weight of the dissatisfied respondents towards public local authorities, business ownership associations and central authorities for those who did not try to access pre-adherence funds remained constant: 18.4-18.2% relationship with APL, 12.6-12.8% relationship with business ownership associations and 16.8-16.5% public central authorities. However we can see a significant statistical association of dissatisfaction of not obtaining European financing and satisfaction degree towards the public central authorities which is not observed in similar cases in the relationship with public local authorities and ownership associations. They are to be blamed for unsuccessful attempts to financing.

**Table 9: Correlation between satisfaction degree related to the colaboration with APL and obtaining post-adherence funds**

<b>Satisfaction degree</b>	<b>Yes, I have got post-adherence funds</b>	<b>Yes, but I have not got post-adherence funds</b>	<b>I have not tried to access such funds</b>	<b>Weight total sample</b>
<b>Very satisfied</b>	29.8%	23.4%	20.2%	21.5%
<b>Satisfied</b>	46.1%	37.5%	33.7%	35.4%
<b>Dissatisfied</b>	14.0%	12.5%	12.6%	12.8%
<b>Very dissatisfied</b>	6.2%	7.8%	5.6%	5.7%
<b>I have not had any collaboration with them until now</b>	3.9%	18.8%	27.9%	24.5%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%

**Table 10 : Correlation between satisfaction degree realted to the colaboration with the ownership associations and obtaining post-adherence funds**

<b>Satisfaction degree</b>	<b>Yes, I have got post-adherence funds</b>	<b>Yes, but I have not got post-adherence funds</b>	<b>I have not tried to access such funds</b>	<b>Weight total sample</b>
<b>Very satisfied</b>	11.8%	10.9%	6.3%	7.2%
<b>Satisfied</b>	60.1%	42.2%	33.0%	36.7%
<b>Dissatisfied</b>	10.7%	14.1%	10.4%	10.6%
<b>Very dissatisfied</b>	2.2%	6.3%	2.4%	2.6%
<b>I ahve not had any collaboration with them until now</b>	15.2%	26.6%	47.8%	42.9%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%

**Table 11: Correlation between satisfaction degree related to the colaboration with public central authorities and obtaining post-adherence**

<b>Satisfaction degree</b>	<b>Yes, I have got post-adherence funds</b>	<b>Yes, but I have not got post-adherence funds</b>	<b>I have not tried to access such funds</b>	<b>Weight total sample</b>
<b>Very satisfied</b>	13.5%	9.4%	4.7%	6.0%
<b>Satisfied</b>	32.6%	23.4%	22.5%	23.8%
<b>Dissatisfied</b>	20.8%	25.0%	11.4%	13.1%
<b>Very dissatisfied</b>	7.9%	10.9%	5.1%	5.7%
<b>I have not had any collaboration with them until now</b>	25.3%	31.3%	56.3%	51.4%
<b>Total</b>	100.0%	100.0%	100.0%	100.0%



### 2.2.2. Hypothesis testing at regional level.

One can see a better preoccupation for obtaining financing for the West region. Also in that region there is a higher successful rate. In the other regions the interviewed entrepreneurs obtained fewer post-adherence funds than during the pre-adherence period. Thus in the South Muntenia region 20.9% applied for pre-adherence funds, 12.6% in the South-West region and 16.3% in the North-West. The same situation can be found with the post-adherence funds (see Table 12).

**Table 12: Distribution on development regions: ratios of pre and post-adherence non-refundable financing opportunities**

	South-Muntenia		South-West		North-West		West	
	pre-adherence funds	post-adherence funds	pre-adherence funds	post-adherence funds	pre-adherence funds	post-adherence funds	pre-adherence funds	Post-adherence funds
<b>Yes, I got financing</b>	14.8	12.8	7.9	6.1	10.7	10.4	16.9	19.8
<b>Yes, but I have not got financing</b>	6.1	5.1	4.7	4.7	5.6	4.2	6.1	3.2
<b>I have not tried</b>	79.1	82.1	87.5	89.2	83.7	85.5	77.0	77.0
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The most pleased with the collaboration with the authorities in obtaining pre-adherence financing are the people from the North-West region while those from the South-West although they have not obtained financing do trust in authorities (see Table 13).

**Table 13: Weight of those satisfied with the collaboration with APL after accessing pre-adherence funds (%)**

Development region	Yes, I have got financing	Yes, but I have not obtained financing	I have not tried
<b>South-Muntenia</b>	72.0	73.5	54.6
<b>South-West</b>	68.2	92.3	54.1
<b>North-West</b>	80.6	36.8	47.9
<b>West</b>	76.6	58.8	58.9

Regarding the relationship with the business ownership associations, the people from the West are the most pleased (see Table 14).

**Table 14 : Weight of those satisfied with the collaboration with business ownership associations after accessing pre-adherence funds (%)**

Development region	Yes, I have got financing	Yes, but I have not obtained financing	I have not tried
<b>South-Muntenia</b>	63.4	55.9	39.0
<b>South-West</b>	59.1	61.5	36.1
<b>North-West</b>	69.4	63.2	40.1
<b>West</b>	78.7	52.9	41.6

The relationship with the public central authorities is much more appreciated by the North-West respondents and the West region (see Table 15).

**Table 15: Weight of the respondents satisfied with the collaboration with the public central authorities after accessing pre-adherence funds (%)**

Development region	Yes, I have got financing	Yes, but I have not obtained financing	I have not tried
<b>South-Muntenia</b>	39.0	26.5	29.2
<b>South-West</b>	40.9	38.5	29.9

<b>North-West</b>	58.3	26.3	23.4
<b>West</b>	42.6	41.2	26.2

Satisfaction degree of those who obtained European financing is higher in the West region with a relationship to APL and respondents from South-West are to a greater extent satisfied with APL collaboration (see Table 16).

**Table 16 : Weight of respondents satisfied with APL collaboration after accessing post-adherence funds (%)**

<b>Development region</b>	<b>Yes, I have got financing</b>	<b>Yes, but I have not obtained financing</b>	<b>I have not tried</b>
<b>South-Muntenia</b>	71.8	67.9	55.6
<b>South-West</b>	76.5	84.6	54.2
<b>North-West</b>	77.1	28.6	48.6
<b>West</b>	80.0	55.6	57.5

Satisfied with the business ownership associations collaboration is close to the values in the 4 regions, increased in the North-West. Less satisfied with the business associations collaboration are respondents from the West region on the segment of people who have not obtained financing (see Table 17).

**Table 17 : Weight of satisfied respondents with businesses ownership collaboration after accessing post-adherence funds**

<b>Development region</b>	<b>Yes, I have got financing</b>	<b>Yes, but I have not obtained financing</b>	<b>I have not tried</b>
<b>South-Muntenia</b>	70.4	50.0	39.1
<b>South-West</b>	70.6	60.2	35.3
<b>North-West</b>	74.3	50.0	40.6
<b>West</b>	72.7	44.4	42.5

Collaboration with public central authorities is much more appreciated in the North-West region by respondents who successfully accessed funds and in the South-West region respondents who wanted to get financing (see Table 18).

**Table 18: Weight of satisfied respondents with the public central authorities collaboration after accessing post-adherence funds**

<b>Development region</b>	<b>Yes, I have got financing</b>	<b>Yes, but I have not obtained financing</b>	<b>I have not tried</b>
<b>South-Muntenia</b>	42.3	35.7	28.4
<b>South-West</b>	35.3	38.5	30.5
<b>North-West</b>	54.3	21.4	24.3
<b>West</b>	49.1	33.3	24.8

In the North-West and West respondents are more pleased with APL, public central authorities and business association collaboration only if they access funding while South-West respondents give their credit even though they did not obtain financing. It is a pattern in the West part of the country and partly in the South.

We consider that the second hypothesis is true at the level of the four development regions included in the present study. Still the element that gives consistency to the hypothesis can be found especially in the West.

The more pertinent is the access to European funds, the higher the satisfaction regarding collaboration with the institutions involved in regional development.

### 3. Conclusions

A consistent economic activity of companies is an important element of regional development. In an economic environment where the loan is expensive, Romania has to take advantage of the financing opportunities provided by the European structural funds. Rural areas entrepreneurs and potential entrepreneurs face even bigger difficulties. Our study has tested two hypothesis:

- a. the first deals with the relationship accessing information about business opportunities and satisfaction with public local and central authorities collaboration;
- b. the second deals with the access to European financing and satisfaction with public local and central authorities collaboration.

The first hypothesis is valid and demonstrates that satisfaction degree with the institutions mentioned in the study is directly proportional to ensuring equal access to information sources both for the rural and urban areas.

The second hypothesis demonstrates that the relationship with the players involved in regional development are directly proportional to obtaining European money funding. The greatest expectations are from the part of public local authorities, then from the business ownership associations and finally central authorities. Thus the framework to solve economic problems is constituted through the joint effort of the local players. Breakdown on regions, entrepreneurs from the West part of the country (North-West and West development region) are more focused on the local relationships than those from the South. Explanations can be found in the cultural model and proximity of the decision makers that have an impact on the whole country. Unfortunately there is no growth in the interest of the entrepreneurs and potential entrepreneurs to get financing from European money. There are signs of change at the entrepreneurs from the West who accessed more pre-adherence non-refundable funds.

The present research, limited by its scope and number of people surveyed, represents a starting point in the study of the relationship between the business environment and institutions interested in regional development. The results obtained can constitute working hypothesis for research on larger samples applied to all development regions from Romania.

This work was supported by the strategic grant POSDRU/89/1.5/S/62259, Project “ Applied social, human and political sciences. Postdoctoral training and postdoctoral fellowships in social, human and political sciences” cofinanced by the European Social Fund within the Sectorial Operational Program Human Resources Development 2007-2013.

#### 4. References

- Braun, G.; Diensberg, C. (2007) Cultivating Entrepreneurial Regions- Cases and Studies from the Network Project ‘Baltic Entrepreneurship Partners’. Available at [http://www.bepart.info/fileadmin/user\\_upload/textfiles/2007\\_CP2\\_Publication/BEPART\\_\\_Cultivating\\_Entr\\_Regions\\_\\_June2007.pdf](http://www.bepart.info/fileadmin/user_upload/textfiles/2007_CP2_Publication/BEPART__Cultivating_Entr_Regions__June2007.pdf)
- Gurau, C. (2009) Rural entrepreneurship in post-communist Romania, *International Journal of Business and Globalization*, 3(2), pp. 158-172
- Holley, J. (2005) *Building a Regional Entrepreneurship Network: A Guide to Action*. Available at [http://www.networkweaving.com/june\\_files/HowToREN.pdf](http://www.networkweaving.com/june_files/HowToREN.pdf)
- Nemirschi, N; Craciun, A. (2010) Entrepreneurship and tourism development in rural areas: case of Romania, *Romanian Economic and Business Review*, 5(1), pp. 138-143
- Pezzini, M. (2003) *Cultivating regional development: main trends and policy challenges in OECD regions*. Paris: OECD.
- Tamasy, C. (2006) Determinants of regional entrepreneurship dynamics in contemporary Germany: A conceptual and empirical analysis, *Regional Studies*, 40 (4), pp. 365-384
- Tudor, M. (2008) Rural Entrepreneurship- Aggregation Factor or Local Stakeholders!?, *Agricultural Economics and Rural Development*, V (1-2), pp. 68-75 Available at [ftp://ftp.repec.org/opt/ReDIF/RePEc/iag/iag\\_pdf/AERD0802\\_68-75.pdf](ftp://ftp.repec.org/opt/ReDIF/RePEc/iag/iag_pdf/AERD0802_68-75.pdf)
- FNTM (2012), Rural-Antreprenor. Available at <http://www.fntm.ro/default.aspx>

# ASPECTS REGARDING MATHEMATICAL MODELS FOT DETERMING THE LINK BETWEEN PRODUCTION, STOCK MANAGEMENT AND LEAD TIME

**CAMPEAN Emilia Maria**

*Ph.D. student, Faculty of Machine Building, Design and Robotic Engineering Department, "Technical" University, Cluj Napoca, Romania, campeane@yahoo.com*

**MORAR Liviu**

*Professor, Faculty of Machine Building, Design and Robotic Engineering Department, "Technical" University, Cluj Napoca, Romania, liviu.morar@staff.utcluj.ro*

**POP Dumitru**

*Professor, Grupul Școlar "V.Gelu" Zalău, S.Bărnăușii 51, Zalau, Romania, dumitruPOP@yahoo.com*

**Abstract:** Organisations are continuously in search of solutions to manage the supply chain successfully, aiming to obtain competitive advantages. The paper presents a mathematical model, which uses three functions (lead time function, stock function and production function) as input data, to determine the so called "equilibrium point". This point represents the balance between the three functions and creates one of the competitive advantages.

**Key words:** mathematical models, stock optimisation, triangle, production, lead time

## 1. Introduction

Throughout the history of mankind wars have been won or lost through logistics strengths and capabilities. It has been argues that the American War of Independence was lost by the British since they did not have proper supply lines and relied heavily on Britain. This resulted in poorly equipped and demoralized troops.

Logistics is the management of the flow of goods between the point of origin and the point of destination in order to meet the requirements of customers. Logistics involves the integration of information, transportation, inventory, warehousing, material handling and packaging, and often security. (wikipedia)

There are still some companies that reduce cost and improve profit margins at the expense of supply chain partners. These companies do not realize that they are simply transferring costs upstream and downstream and this does not make them any more competitive. All costs incurred by intermediaries will ultimately be reflected in the price charged from the end-user. The leading logistics companies recognize the fallacy of this conventional approach.

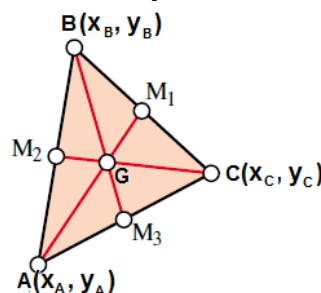
Logistics management is simply the management of flows of materials within the organization but supply chain management recognizes that this is simply not enough and linkages with external supply chain partners upstream and downstream is essential.

## 2. Determining the coordinates of the three points for the triangle

The companies, besides the linkages with external supply chain partners, have to to minimize lead time, to minimize stocks and to maximize production. So, we obtained three functions - one which has to be maximized and two which has to minimized.

The mathematical model was achieved using the similarity of the three functions with the peaks of a triangle.

**Figure 1: Centre of mass of a system consisting of three points.**



The starting point of the mathematical model was to determine the three functions. In order to determine the leading time function it was used the Data Fit programmer. The input data for the programme were collected from organisation which operates in the field of automotive industry. From 600 companies active in 2012 for Cluj county only 8 agreed to participate at the conducted study.

The model was determined considering the following assumptions:

1. Loading and unloading of goods is done automatically, using a forklift
2. Weather conditions are neglected
3. When the order is received, it is believed to be sent for preparation
4. Ordered products are in stock
5. The delivery costs were not take into consideration
6. Product goods are transported in pallets
7. Transport is done by trailers
8. Intermediary firms are excluded, transport is realized from supplier to manufacturer

We obtained the function:

$$T = 0.57x_1 + 2.063x_2 + 1.85x_3 + 0.804x_4 - 3.809x_5 + 0.202x_6 + 196.016 \quad (1)$$

where

$x_1$ =distance, [km]

$x_2$ =car capacity, [kg]

$x_3$ = preparation and discharge time, [min]

$x_4$ = rest time, [min]

$x_5$ = quantity, [kg]

$x_6$ = rejected products.[pieces]

$T$ =lead-time [min]

The parameters of the formula were obtained with the help of the studied organisations, the used instrument being the questionnaire.

Any organisation has a competitive advantage if the lead time is as minimal as possible.

The next formula has for the production, formula which has to be maximized.

Production at the enterprise level is obtained by summing the quantities of products manufactured in production divisions. Production in conventional units is obtained using the relationship: ([www.biblioteca-digitala.ase.ro](http://www.biblioteca-digitala.ase.ro)).

$$P_k = \sum_{i=1}^n P_{ki} \cdot C_{ki} \quad (2)$$

Where:

$P_k$  – the production output from the group "k" in conventional units;

$n$  - number of homogeneous groups that compose the product group k;

$P_{ki}$  - production volume of product "i";

$C_{ki}$  - transformation coefficient of the product "i" into the product "k", obtained using the relationship:

$$C_{ki} = \frac{m_i}{m_k} \quad (3)$$

where:

$m_i$  – time per unit of product i;

$m_k$  - time per standard unit of product k.

Next it will be presented the formula for stocks.

In order to determine the optimal control of supply, we used some hypothesis, such as:

1. The stock level is known;
2. The sales history is also known;

3. The level of placed orders and not received are also known;
4. The delivery time is calculated;
5. The cost of the process is not taken into account.

The stock level is represented by the difference between the size order and the products that have been delivered from the order.(Ciupan, 2011)

$$S = [\theta \cdot C_{s_{med}} \cdot d - (St + Cd)] - P \quad (4)$$

Where:

( $\theta$ ) represents the trend

(d) represents the lead time

(St) is the stock level at time of order placement

(Cd) is the order in progress

(P) are the number of products (generated by the production function)

$C_{s_{med}}$  is the medium consumption

Because of the fact that any point in OXY plan is represented by the coordinates x and y, the formula for production, stock management and lead time had to be modified.

So, formula (1) becomes:

$$T = t_a + 0.57d \quad (5)$$

Where:

d is the distance

$t_a$  are the auxiliary times

The formula (2) , for production, remains the same, because it has two parameters.

The formula for stock management (3) becomes:

$$S = M - P \quad (6)$$

Where:

M is the order size

P is the production

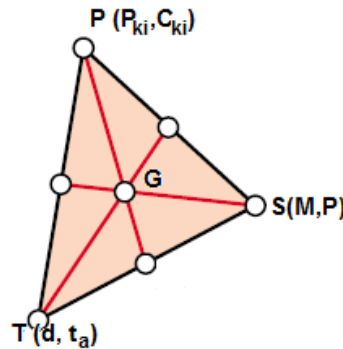
S is the stock level

M represents the command size and the formula for it is:

$$M = [\theta \cdot C_{s_{med}} \cdot d - (St + Cd)] \quad (7)$$

Having the three formulas we can define the point of the triangle.

**Figure 2: Representation of the triangles and its functions**



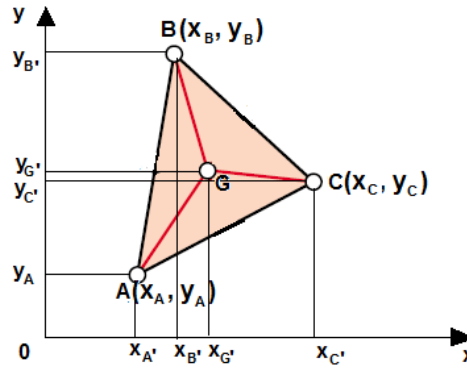
Given the definition of the mass centre, the G can be defined as the equilibrium position for the three functions. We believe that this is necessary to have a fixed position, regardless of the function variation for the company to operate under conditions of high efficiency.

In order to do that, if one of the points is changing his position, the other two must also change their position.

### 3. The mathematical model of optimisation the three functions

The best way to see if a point has changed its position is to see if the projection is unchanged. We determined the projection both for x axes but also for y axes.

Figure 3: Representation of the triangle's projections



The domain is:

$$D = \Delta ABC = \{(x, y) \in R^2 / x_A \leq x \leq x_B, y_{AC} \leq y \leq y_{AB}\} \cup \{(x, y) \in R^2 / x_B \leq x \leq x_C, y_{AC} \leq y \leq y_{BC}\}$$

.....

(8)

$$Ix = \iint_D x dx dy = \int_{x_A}^{x_B} x \left( \int_{y_{AC}}^{y_{AB}} dy \right) dx + \int_{x_B}^{x_C} x \left( \int_{y_{AC}}^{y_{BC}} dy \right) dx$$

.....

(9)

$$= \int_{x_A}^{x_B} x(y_{AB} - y_{AC}) dx + \int_{x_B}^{x_C} x(y_{BC} - y_{AC}) dx$$

.....

(10)

$$\begin{aligned} &= \int_{x_A}^{x_B} x \left[ (y_B - y_A) \frac{x - x_A}{x_B - x_A} + y_A - (y_C - y_A) \frac{x - x_A}{x_C - x_A} - y_A \right] dx + \int_{x_B}^{x_C} x \left[ (y_C - y_B) \frac{x - x_B}{x_C - x_B} + y_B - (y_C - y_A) \frac{x - x_A}{x_C - x_A} - y_A \right] dx \\ &= \frac{y_B - y_A}{x_B - x_A} \int_{x_A}^{x_B} (x^2 - x \cdot x_A) dx - \frac{y_C - y_A}{x_C - x_A} \int_{x_A}^{x_B} (x^2 - x \cdot x_A) dx + \frac{y_C - y_B}{x_C - x_B} \int_{x_B}^{x_C} (x^2 - x \cdot x_B) dx - \frac{y_C - y_A}{x_C - x_A} \int_{x_B}^{x_C} (x^2 - x \cdot x_A) dx + \\ &\quad \frac{y_C - y_B}{x_C - x_B} \int_{x_B}^{x_C} (x^2 - x \cdot x_B) dx - \frac{y_C - y_A}{x_C - x_A} \int_{x_B}^{x_C} (x^2 - x \cdot x_A) dx + (y_B - y_A) \int_{x_B}^{x_C} x dx \\ &= \left( \frac{y_B - y_A}{x_B - x_A} - \frac{y_C - y_A}{x_C - x_A} \right) \left( \frac{x^3}{3} - \frac{x^2}{2} x_A \right) \Big|_{x_A}^{x_B} + \frac{y_C - y_B}{x_C - x_B} \left( \frac{x^3}{3} - \frac{x^2}{2} x_B \right) \Big|_{x_B}^{x_C} - \frac{y_C - y_A}{x_C - x_A} \left( \frac{x^3}{3} - \frac{x^2}{2} x_A \right) \Big|_{x_B}^{x_C} + (y_B - y_A) \frac{x^2}{2} \Big|_{x_B}^{x_C} \\ &= \left( \frac{y_B - y_A}{x_B - x_A} - \frac{y_C - y_A}{x_C - x_A} \right) \left[ \frac{x_B^3 - x_A^3}{3} - \frac{x_A}{2} (x_B^2 - x_A^2) \right] + \frac{y_C - y_B}{x_C - x_B} \left[ \frac{x_C^3 - x_B^3}{3} - \frac{x_B}{2} (x_C^2 - x_B^2) \right] - \frac{y_C - y_A}{x_C - x_A} \\ &\quad \left[ \frac{x_C^3 - x_B^3}{3} - \frac{x_A}{2} (x_C^2 - x_B^2) \right] + (y_B - y_A) \frac{x_C^2 - x_B^2}{2} \end{aligned}$$

$$\begin{aligned}
I_x &= \left( \frac{y_B - y_A}{x_B - x_A} - \frac{y_C - y_A}{x_C - x_A} \right) (x_B - x_A) \left( \frac{x_B^2 + x_A x_B + x_A^2}{3} - \frac{x_A x_B + x_A^2}{2} \right) + \\
&+ \frac{y_C - y_B}{x_C - x_B} (x_C - x_B) \left( \frac{x_C^2 + x_C x_B + x_B^2}{3} - \frac{x_C x_B + x_B^2}{2} \right) - \frac{y_C - y_A}{x_C - x_A} (x_C - x_B) \left( \frac{x_C^2 + x_C x_B + x_B^2}{3} - \frac{x_A x_C + x_A x_B}{2} \right) \\
&+ (y_B - y_A) \frac{x_C^2 - x_B^2}{2} \\
&= (y_B - y_A) \frac{2x_B^2 - x_A^2 - x_A x_B}{6} - \frac{(y_C - y_A)(x_B - x_A)}{x_C - x_A} \frac{2x_B^2 - x_A^2 - x_A x_B}{6} + (y_C - y_B) \\
&\frac{2x_C^2 - x_B^2 - x_C x_B}{6} - \frac{(y_C - y_A)(x_C - x_B)}{6(x_C - x_A)} \frac{2x_C^2 + 2x_B^2 + 2x_C x_B - 3x_A x_C - 3x_A x_B}{6} + (y_B - y_A) \frac{x_C^2 - x_B^2}{2} \\
&= (y_B - y_A) \frac{-x_B^2 - x_A^2 + 3x_C^2 - x_A x_B}{6} + (y_C - y_B) \frac{2x_C^2 - x_B^2 - x_C x_B}{6} - \frac{y_C - y_A}{(x_C - x_A)} \frac{1}{6} [2x_B^3 - x_A^2 x_B - x_A x_B^2 - 2x_A x_B^2 + x_A^3 + x_A^2 x_B + 2x_C^3 + \\
&+ 2x_B^2 x_C + 2x_B x_C^2 - 3x_A x_C^2 - 3x_A x_B x_C - 2x_B x_C^2 - 2x_B^3 - 2x_C x_B^2 + 3x_A x_B^2 + 3x_A x_B x_C] \\
&= x_A^3 + 2x_C^3 - 3x_A x_C^2 \\
&= x_A^3 - x_A x_C^2 + 2x_C^3 - 2x_A x_C^2 \\
&= x_A (x_A^2 - x_C^2) + 2x_C^2 (x_C - x_A) \\
&= (x_C - x_A) (2x_C^2 - x_A^2 - x_A x_C) \\
&= (y_B - y_A) \left( \frac{-x_B^2 - x_A^2 + 3x_C^2 - x_A x_B}{6} \right) + (y_C - y_B) \frac{2x_C^2 - x_B^2 - x_C x_B}{6} + (y_C - y_A) \frac{2x_C^2 - x_A^2 - x_A x_C}{6} \\
&= \frac{y_A}{6} (2x_C^2 - x_A^2 - x_A x_C + x_B^2 + x_A^2 - 3x_C^2 + x_A x_B) + \frac{y_B}{6} (-x_B^2 - x_A^2 - x_A x_B + 3x_C^2 + x_B^2 - 2x_C^2 + x_C x_B) + \\
&\frac{y_C}{6} (2x_C^2 - x_B^2 - x_B x_C - 2x_C^2 + x_A^2 + x_A x_B) \\
&= \frac{y_A}{6} (x_B^2 - x_C^2 + x_A x_B - x_A x_C) + \frac{y_B}{6} (x_C^2 - x_A^2 + x_C x_B - x_A x_B) + \frac{y_C}{6} (x_A^2 - x_B^2 + x_A x_C - x_B x_C) \\
&= \frac{y_A}{6} (x_B - x_C)(x_A + x_B + x_C) + \frac{y_B}{6} (x_C - x_A)(x_A + x_B + x_C) + \frac{y_C}{6} (x_A - x_B)(x_A + x_B + x_C) \dots\dots\dots (11)
\end{aligned}$$

After solving the integral solution was obtained:

$$I_x = \frac{x_A + x_B + x_C}{6} [y_A (x_B - x_C) + y_B (x_C - x_A) + y_C (x_A - x_B) \dots\dots\dots (12)$$

For the y axes, following the same steps, we obtained:



$$D = \Delta ABC = \{(x, y) \in R^2 / y_A \leq y \leq y_C, x_{AB} \leq x \leq x_{AC}\} \cup \{(x, y) \in R^2 / y_C \leq y \leq y_B, x_{AB} \leq x \leq x_{BC}\}$$

$$I_y = \iint_D y dx dy = \int_{y_A}^{y_C} y \left( \int_{x_{AB}}^{x_{AC}} dx \right) dy + \int_{y_C}^{y_B} y \left( \int_{x_{AB}}^{x_{BC}} dx \right) dy$$

$$I_y = \frac{y_A + y_B + y_C}{6} [x_A(y_C - y_B) + x_B(x_A - x_C) + x_C(y_B - y_A)] \dots\dots\dots (13)$$

The obtained equations are:

$$I_x = \frac{x_A + x_B + x_C}{6} [y_A(x_B - x_C) + y_B(x_C - x_A) + y_C(x_A - x_B)] \dots\dots\dots (14)$$

$$I_y = \frac{y_A + y_B + y_C}{6} [x_A(y_C - y_B) + x_B(x_A - x_C) + x_C(y_B - y_A)] \dots\dots\dots (15)$$

The coordinates of the G point can be determined with the formula:

$$x_G = \frac{I_x}{I} \dots\dots\dots (16)$$

$$y_G = \frac{I_y}{I} \dots\dots\dots (17)$$

Where:

$$I = \iint_D dx dy = \frac{1}{2} \begin{vmatrix} x_A & y_A & 1 \\ x_B & y_B & 1 \\ x_C & y_C & 1 \end{vmatrix} \dots\dots\dots (18)$$

$$= \frac{1}{2} |x_B y_C - x_C y_B - x_A y_C + x_C y_A + x_A y_B - x_B y_A|$$

$$= \frac{1}{2} |x_A(y_B - y_C) + x_B(y_C - y_A) + x_C(y_A - y_B)|$$

$$= \frac{1}{2} |y_A(x_C - x_B) + y_B(x_A - x_C) + y_C(x_B - x_A)| \dots\dots\dots (19)$$

Replacing in equation 16 and 17, we obtained:

$$x_G = \frac{I_x}{I} = \frac{x_A + x_B + x_C}{3} \dots\dots\dots (20)$$

$$y_G = \frac{I_y}{I} = \frac{y_A + y_B + y_C}{3} \dots\dots\dots$$

(21)

The coordinates of the equilibrium point are:

$$G\left(\frac{x_1 + \Delta x + x_2 + x_3 + \Delta \bar{x}}{3}, \frac{y_1 + \Delta y + y_2 + y_3 + \Delta \bar{y}}{3}\right) \dots\dots\dots$$

(22)

As seen from previous relationship, it is only possible simultaneous change of two points of the three ones.

#### 4. Conclusion

The mathematical model obtained from simulation show that there is a close connection between the three functions. Thus, while the centre of gravity remains unchanged, the three functions are inversely proportional.

If we want to increase, for example, three units of production, the other two functions must also decrease with three units. So, or the lead time may be reduced by three units, or stock of goods may decrease also with three units or both together can drop with three units.

#### 5. Acknowledgements

2. This paper was supported by the project "Doctoral studies in engineering sciences for developing the knowledge based society-SIDOC" contract no. POSDRU/88/1.5/S/60078, project co-funded from European Social Fund through Sectorial Operational Program Human Resources 2007-2013.

#### 6. References

- E. Ciupan, (2011), A Model for the Management of a Supply Activity, Based on Statistical Data, Quality and Innovation in Engineering and Management, Cluj Napoca
- Fourer R., (1997), Database structures for mathematical programming models, *Decision Support Systems*
- Ilies, L. (2006), *Logistics - Source of Competitivity*, available at <http://www.managementmarketing.ro/pdf/articole/8.pdf>
- [www.biblioteca-digitala.ase.ro](http://www.biblioteca-digitala.ase.ro)
- <http://www.small-business-advice.org/supply-chain-logistics-competitive-strategy.htm>
- <http://en.wikipedia.org>

# A HYBRID MODEL FOR THE ASSEMENT OF THE ORGANIZATIONAL CULTURE AT COMPANY LEVEL, ADAPTED TO THE ROMANIAN BUSINESS ENVIRONMENT

**CERCEL Mihai Ovidiu**

*Associated Assistant professor/PhD, Faculty of International Business and Economics  
The Bucharest University of Economic Studies, Bucharest, Romania, email: mihaic9@hotmail.com*

**Abstract:** *The study aims to present a hybrid, complex model to assess the organizational culture of a company, by taking into consideration the influence of societal and organizational values, a tool better adapted to the Romanian business environment. The assessment instrument has to be able to determine the employee's societal values and the organizational culture of the company providing the link between those behaviours and attitudes which increase the social and economic performance of the organization. The results have to highlight how the difference of perception between peoples' values and behaviours influences the performance of the organization.*

**Keywords:** organizational behaviors, organizational culture and climate, societal values, organizational culture assessment instruments.

**JEL classification:** A13, D23, M14

## 1. Introduction

Research conducted worldwide show that there are cultural patterns specific to each nation. These cultural patterns are determined by history, culture, education, but also by religion or beliefs and will be reflected in thinking and acting of people, stressing their perceptions on the values of the society they belong to. (Hofstede, 2001). Gerry Johnson believes that "history, religion and even the climate can explain these differences" (G. Johnson, 2008, p. 224).

Studies conducted by different worldwide research project highlighted differences of perception between peoples' societal values, regarding the importance that people grants to work, leisure, family, social status, etc. Some patterns were identified and allow us to define a series of cultural dimensions that characterize individual companies. These cultural dimensions are related to: the degree of accepting inequality among people, aversion or tolerance to situations of uncertainty, the existence of differences between male and female roles in society, role of the individual within the group where he/she belongs, the degree to which society rewards collective action and reallocation of resources, the perception of present and future.

Professor Geert Hofstede gives us an explanation in his book "Software of the Mind - Management of multicultural structures" (1996): "Each individual is the bearer of patterns of thinking, feelings and actions acquired during his lifetime. Many of them have been acquired during childhood, when the individual is able to learn and assimilate. [...] Because some thinking pattern were deeply embedded in a person's mind, learning something different is heavier than their initial learning" (translation from Romanian edition, Hofstede G. 1996, p. 20).

In this article we intend to present the theoretical framework of a new tool for assessing the organizational culture of a company, an instrument better adapted to the Romanian business and social environment, by measuring simultaneously the individual cultural values modeled by the society that he belongs to and the cultural values modeled by the company where he is working. Such a model will provide an easy understanding of societal values' influence on organizational culture of the company, and of the discreet way in which organizational culture positively or negatively affects employee performance and, ultimately, the company itself.

## 2. Characteristics of organizational culture in Romania

### 2.1. At Society level

The GLOBE research (Global Leadership and Organizational Behavior Effectiveness) was a sophisticated project at global scale, which involved considerable human and material forces. The project lasted 10 years and included 62 companies, aiming to measure the nine so-called fundamental attributes or dimensions of organizational culture, and then evaluate how they shape the leadership in analyzed companies (Bibu N., Brancu L., 2008). The results grouped the countries in ten "clusters",

based on cultural proximity. The following clusters were identified: British Europe, Eastern Europe, German Europe, Latin Europe, Northern Europe, Latin America, Sub-Saharan Africa, Middle East, South Asia and Confucian Asia (Grove, 2005).

Regarding the space that we are interested of, namely the European continent, GLOBE study results show that, in terms of organizational culture, Europe can be cut into two areas: the Northern area, which includes states that are above an imaginary line joining the UK and Austria and Southern area, which includes the entire South of the continent, from Portugal to Georgia, including Central and Eastern European countries in this subspace. (House, R. J. and others, 2004)

A significant difference compared to Hofstede model for example, is that each of these dimensions was measured in two ways: how is the society at a certain moment in time (called "societal practices" aspect by GLOBE scientists) and how the society wishes to be like (called "societal values" aspect by GLOBE researchers). Research conducted in different countries showed that the most difficult to change is societal culture, stressing the obvious differences between the values that society seeks and the current, real values of society at a certain moment.

Thus, those studies showed that the Romanian society tolerates unequal distribution of power easily, is rather collectivist, and encourages individualism and aggressive attitude in social relationships, with male and female values that interpenetrate and with a high level of tolerance leading to uncertainty, great resistance to change and avoiding risk by non taking responsibilities. In terms of orientation, the Romanian society is poorly oriented towards future and mainly focused on present time rather than the future, on short or medium term rather than long term. Regarding indulgence versus restraint, Romania is characterized by low to medium degree of indulgence, which shows that Romanians allocated, often constrained by the need to meet security needs, more work and less time for leisure. As regards the last indicator, Monumentalism, Romania is characterized by average scores, showing flexibility and a certain inclination towards modesty.

It is also worth noting that significant differences in societal values are found even in different regions of Romania (Neculăesei A. and others, 2008), which can be explained knowing the way in which the three provinces have developed in time. Also, if we continue segmentation, one can see that there are differences within the same region between village and city, between individuals with different degrees of education or training, etc..

This last remark leads us to claim that within each company there is a sui generis mix of individual organizational culture, influenced blend of education at home and at school, nationality, grade and type of training, the career paths of each individual.

These differences of organizational culture at society level are translated at the level of organization in a cultural conditioning of values, attitudes, perceptions, behaviors and rules specific to each individual. Furthermore, over these societal cultural differences overlap each individual characteristic values (regional specificities, education, training, experience, etc.) and values and norms imposed to the organization by its leaders. The result of these interactions is a sui generis mixture, specific to each organization, of values, beliefs, attitudes, norms and rules, rituals and symbols that form the organizational culture. Thus we can explain why an organization's culture differs from other similar culture in terms of industry, ethnic composition of employees, size of turnover, number of employees, training them, etc..

## **2.2. At organization level**

Each company is a social group by itself, with its own values derived from both the mission and vision of stakeholders, and the interactions among employees. Thus, each company will have an organizational culture driven both by leaders and employees. Education at home and at school, geographic area, urban-rural differences, previous work experience, age, etc., are all factors that determine individual variations in organizational culture. These differences, sometimes major ones, other times relatively minor, ultimately modulate the organizational culture of each company. All these values acquired or learned during lifetime, shape the individual behaviors and further the behaviors of the organization. (Nastase, 2004)

In the international literature, there are described several tools for evaluating organizational culture, but they are focused on organizational culture at society level (Hofstede, GLOBE, ETC.), or organizational culture at company level (Human Synergetics OIC, Denison,OCAI, etc.).

According to research conducted by Human Synergetics in Romania, the organizations culture in our country is dominated by the Aggressive-Defensive styles, mainly Competition and Power.

Regarding secondary dominations, we note the orientation towards Constructive style, especially, Self-actualizing and Achievement styles, as well as passive defensive styles such as Dependent and Avoidance orientation.

In our opinion, these results can be explained by the influence of cultural features at society level on the culture of the organization. We appreciate that high scores for dependent styles found in many Romanian companies are caused by the influence of high power distance traits, a cultural dimension specific to Romanian society.

Regarding negative orientations, we note the effects determined by the secondary dominant orientation such as fight power and internal competition over resources. These traits determine a hierarchical and non-participating organization and a structure that is influenced by the positions occupied by employees and their status. In such an organization decisions are taken centrally and the fight power is a common behavior for achieving higher positions and status. The competitiveness of the company is negatively affected and employees are determined to do just what they are told and check every decision with their superiors. The performance is diminished by the lack of individual initiative, spontaneity, flexibility and taking necessary decisions in due time. These organizations, while rewarding success (the influence of constructive styles, as well as orientation towards competitiveness), penalize mistakes more than necessary, which causes employees to transfer their responsibilities to others. Also, in these organizations employees are rewarded for competition between themselves. People are working in a "win-lose" environment and consider that in order to be noticed it is better to work (rather) against their colleagues than together.

We noted that regardless of the size of the organization, its turnover, field of activity, or human resources capabilities, there is a certain pattern of behavior and attitudes of the organizations that we find, in varying proportions, within all companies in a given society. Unlike the internationally ideal culture, where constructive styles are dominant, in the case of Romanian companies the ideal organizational culture is a balance of constructive and aggressive defensive style (with higher scores for the opposition, competitive and power orientations) and passive aggressive styles (with higher scores for dependent orientation). In our opinion, these differences regarding the organizational culture of Romanian companies determine different behaviors, perceptions and attitudes of the Romanian employees. These differences can be explained by taking into account the influence of the societal values in modeling the organization culture at company level.

For this reason, a full analysis of organizational culture at company level must determine all these influences that shape the organizational culture of each individual, based on the values of the society in which the respective individual was raised and educated and reaching to the values of the company where he operates. (Cercel, 2011)

In our opinion, in the case of Romania there are some societal values whose features play an important role in managing employee performance and building an organizational culture focused on performance. These are: distance to power, masculine vs. feminine values, degree of individualism and, respectively, tolerance to uncertainty.

A high index of distance to power determines a poor communication within the organization, withholding information, finding subterfuge in the procedures.

A high degree of tolerance to uncertainty determines aversion towards the structures, rules, clear norms and procedures, staff always looking to avoid them. A typical Romanian employee feels comfortable in situations of uncertainty, "is resourceful," refuses to take responsibility thus not being sanctioned, formally respects hierarchy, but informally applies the principle "say as the boss says and do as you like".

Although masculinity index vs. femininity is not directly associated with economic and financial performance of the organization, there are indirect influences. A high index value for feminine values contribute to increasing employees satisfaction, by improving the workplace climate and organization's involvement in CSR projects and therefore a high degree of motivation and loyalty, while a high index of masculinity is associated with rewarding results, recognition of merit, challenge and competition.

Also, a high degree of collectivism, Romanians' strong attachment to the group to which they belong (family in the broad sense) leads to a weak connection with the organization, lack of loyalty and responsibility. Experimental studies have shown that rich countries consistently record high values of individualism index, collectivism being associated with rather low developed states.

We believe that for companies operating in the business environment in Romania, it is essential to quantitatively diminish the influence of these factors on the organization's culture, to

encourage the establishment of a true dialogue between management and employees, in order to increase accountability of employees and to foster the development of thinking "outside the box".

### 3. Proposition of a hybrid model for assessing the Organizational Culture of Romanian companies

A full analysis of organizational culture at the company level must determine not only the organization's climate and staff behaviors and attitudes, but must investigate in depth, trying to highlight the societal values of all members of the organization (especially when we are in a multicultural environment). In our opinion, a complete analysis at the company level must determine all influences that shape the organizational culture of each individual, starting with the values of society in which he was raised and educated up to its company's values. Thus, we used the results obtained in research to build a hybrid, complex model, able to provide a detailed image of the organizational culture, adapted to the business environment in Romania. This model brings together societal values of employees and their organizational values.

The model that we are proposing use a bottom-up approach, respectively from organizational culture values of individuals to determine organizational culture of the whole, as a result of individual societal values and organizational behavior existing at the company level.

The model must be able to provide a quantitative assessment (based on survey, by interviewing a representative population, selected on the basis of probability) of employee perceptions about societal values of individuals and groups and the organizational culture of the respondents.

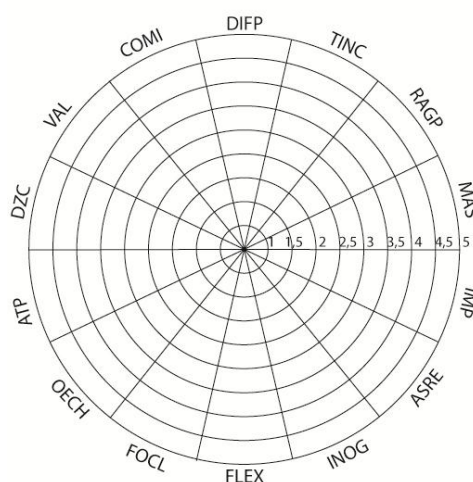
To meet these requirements, the model aims to measure separately societal values and indicators present in the organization culture of the organization.

Thus, the societal values that we believe are relevant for the Romanian business environment are as follows: distance to power (DIFP), tolerance to uncertainty (TINC), reporting to the group/family values (RAGP), Masculine vs. feminine values (MAS).

In terms of cultural indices, we consider that the following have the ability to capture those details relevant to the organizational climate in Romania: Assuming responsibility (ASRE), Flexibility (FLEX), Empowerment (IMP), Organizational learning (INOG), Customer orientation (FOCL), Team orientation (ORECH), Skills development (DZC), Participatory Attitude (ATP), Competitiveness (COMI), and Fundamental values (VAL).

The graphical representation of results can be built as a circumplex in such a way so as to bring societal values of employees and the climate of the organization under the same picture (Figure 1). Such an image becomes a tool that provides an overview of organizational culture, easily interpreted by managers, so that they can understand the influences of organizational culture on performance and quickly discern levers on which action must be taken within a cultural transformation process.

**Figure 1: The ECORG circumplex**



Within the quantitative and qualitative research we identified a number of societal values that have a direct influence on organizational culture of the Romanian employees. Although Geert Hofstede does not recommend his model for characterizing organizational culture at the individual or

organization level, we believe that multiculturalism of organizations and various professional experiences of employees impose the necessity of analyzing, at this level of company, the societal values that characterize the individuals from that respective company. Such an analysis allows, in addition to assessing the culture traits at the organization level, to identify certain specific societal values that shape behaviors in the whole group.

Taking in consideration all the results above, we proposed a new instrument – that we called ECORG (Evaluation of the Organizational Culture), a hybrid organizational culture assessment model, which puts together the analysis of societal values and evaluation of the organizational values of employees.

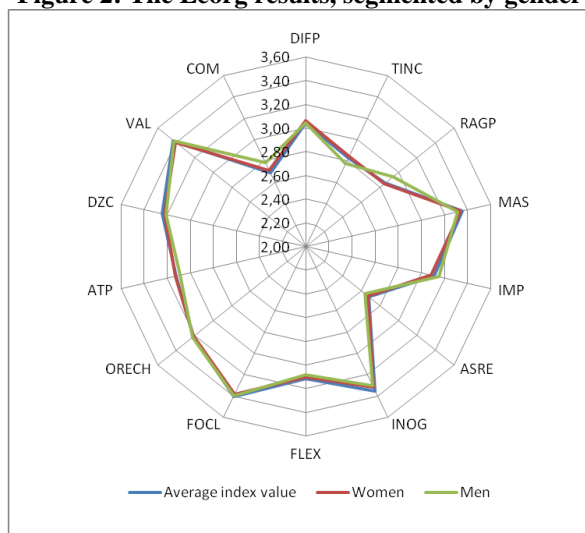
Thus, the ECORG model attempts, through 14 indexes, to assess the organizational culture of the respondents by using four indexes to quantify their societal values and ten indexes to quantify their organizational values. The 14 indexes were inspired from Hofstede model (regarding the societal values) and partly from Denison and Human Synergistics model (concerning the organizational values), to which we added our own indexes (Participatory Attitude, Assuming Responsibilities and Flexibility). Also, following discussions in focus groups we reduced to four the number of statements which determine each index. Thus, we believe that the indexes proposed by the ECORG model have borrowed only the name of the above mentioned models – the questionnaire, the statements necessary to determine each index and their numerical formula, are the researcher's own contribution.

Regarding research methodology, we chose to test the model via LinkedIn web platform. The online respondents were selected from about 35 000 people across the country, with various age, gender, education and professional background, and working in organizations of different sizes and from all sectors. Also, the sample comprises both respondents who are in management positions and simple employees.

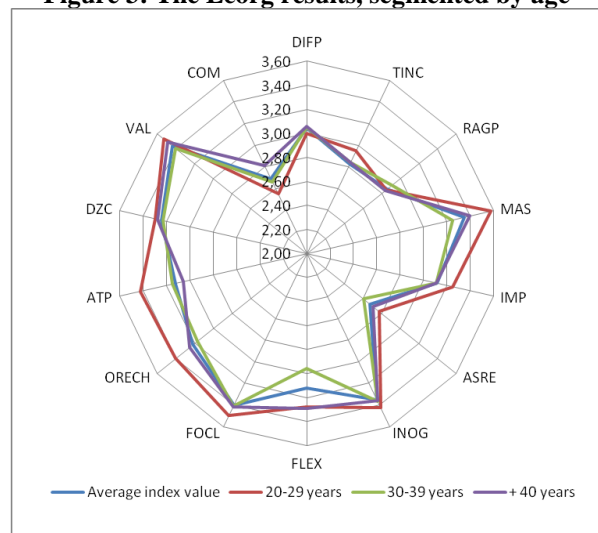
Given the research limitation (sample formed by 66 respondents), we can't define a model benchmark. For that reason we choose to test the capability of the model to describe the organizational culture by analysing the data obtained through different segmentations and to compare the results to the previous studies realized for Romania (Hofstede and GLOBE for societal values and Human Synergistics for organizational values)

The results are shown in the following graphic representations:

**Figure 2: The Ecorg results, segmented by gender**



**Figure 3: The Ecorg results, segmented by age**

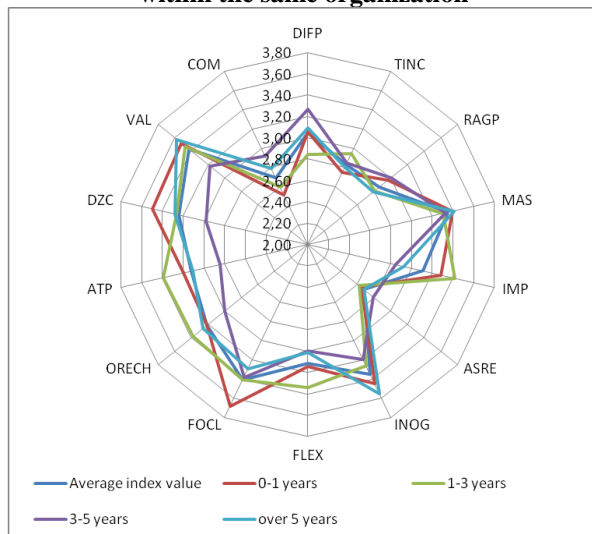


According to figure 2, we can affirm that there are no differences in terms of organizational culture between men and women. Figure 3 shows that young employees are more willing than the average to contribute to the common effort of the company. They understand probably better that the success of their organization means a better future for themselves. Also, they are more willing to work as a team compared to their older colleagues.

The figure 4 illustrates that the new employees are more enthusiastic to develop new competencies; they are more inclined to listen the organization's customers and to take into consideration their comments. The segmentation through the position in the organization (Figure 5)

shows that the managers have a more developed sense of organization's values; they are more inclined to pay attention to the clients and more interested to develop the team work.

**Figure 4: The Ecorg results, segmented by age within the same organization**



**Figure 5: The Ecorg results, segmented by position within the company**

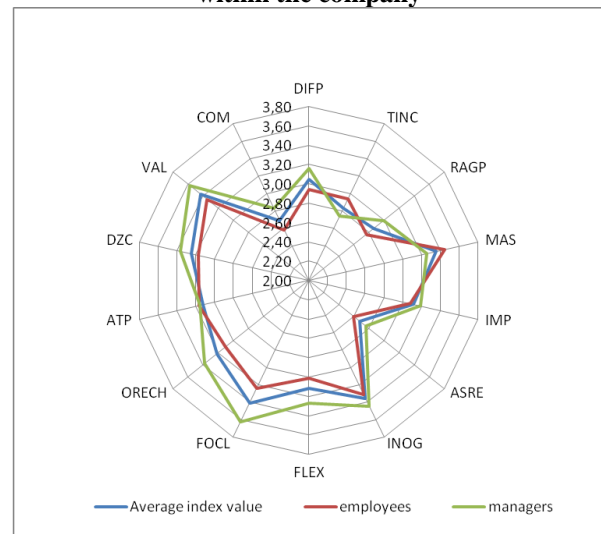
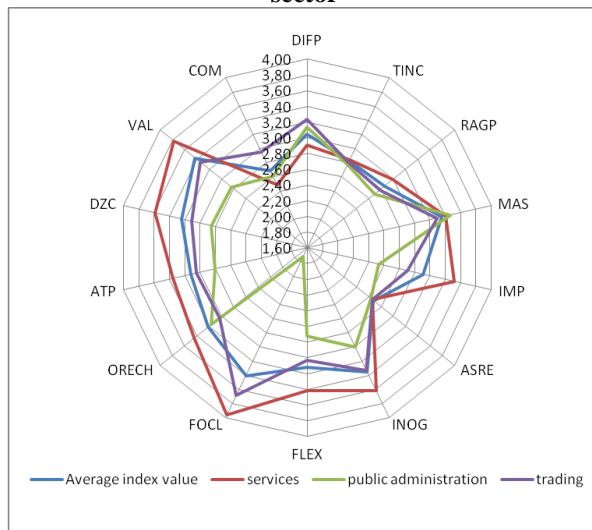
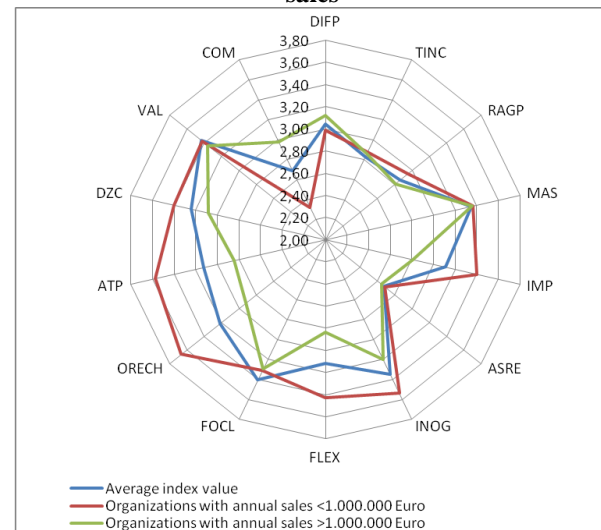


Figure 6 points up that the companies which are acting in services industry are more eager to hear their clients, while this concept is almost unknown for public organizations. Figure 7 shows that employees from small and medium companies (companies with sales lower than 1.000.000 Euro) are more flexible that the bigger ones, are more willing to promote the team work and to they are aware that the good results of their company are directly linked to their own welfare.

**Figure 6: The Ecorg results, segmented by activity sector**



**Figure 7: The Ecorg results, segmented by annual sales**



The results obtained are in line with previous research studies for Romania, mainly Hofstede, Globe and Human Synergistics. We can conclude that the proposed model is able to seize the intimate aspects of the organizational culture at company level. Nevertheless, further test should be carried on larger samples.

For the sample formed by 66 respondents we calculate, only for model illustration, some percentiles. The percentiles bellows are not relevant because of the size of the sample and its unprobabilistic selection, but it shows how the model can be used to compare a future assessment result with the results registered into the existing database.



**Table 1: The Ecorg benchmark**

	DIFP	TINC	RAGP	MAS	IMP	ASRE	INOG	FLEX	FOCL	OECH	ATP	DZC	VAL	COMI
Percentile 25%	2,50	2,50	2,50	3,25	2,50	2,50	3,00	2,56	2,75	2,50	2,56	3,00	2,81	2,25
Percentile 50%	3	2,75	3	3,25	3,25	2,75	3,5	3,25	3,75	3,25	3,25	3,25	3,5	2,75
Percentile 75%	3,43	3,19	3,25	3,5	3,75	3	3,75	3,75	4	3,75	3,69	3,94	4	3,19

#### 4. Conclusions

We think that the ECORG tool provides more information to a manager about the organizational culture of the assessed company, allowing the measurement of employees' organizational values, or otherwise verify the consistency between the vision required by its leaders and the organizational culture of its employees, and the societal values of individuals in the organization. This way, the ECORG circumplex allows us to anticipate the influence of societal values of employees on organizational culture or on a future process of cultural transformation.

In our opinion, the results obtained during the test phase are promising, the tool was able to capture the societal characteristics of Romanian employees, consistent with the results of scientific studies conducted using Hofstede and GLOBE models, and characteristics of the culture at organization level, highlighted within our research using Denison and Human Synergistics models.

To conclude, the test of the ECORG tool on a sample of 66 respondents gave conclusive results on the evaluation of organizational culture. Given the research limitations (small sample sizes and non-probabilistic selection of respondents), we cannot state that these results validate the proposed instrument, however it was a first step, promising for further research by increasing the sample and ensure its statistical representation across the country. Also, increasing the sample will allow us to better define the benchmark of the model, which will mainly include Romanian companies.

#### 5. References

- Alvesson, M. (2002). *Understanding the Organizational Culture*. Londra: Editura Sage Publications.
- Bibu, N., & Brancu, L. (2008, 02 23). *Convergences of the Romanian Societal Culture with European Culture Clusters in the process of European integration*. Retrieved on 08.01.2010, from <http://ssrn.com/abstract=1166343>.
- Cercel, M. O. (2011). A Study of correlations between Human Synergistics And Denison Models for evaluating The Organizational Culture. *Journal of Management and Governance* , 5.
- Cercel, M. O. (2011). The Influence of Societal Values on Organizational Culture at Company Level – the Romanian Case. *Review of International Comparative Management* , 12 (4), 747-754.
- Denison, D. (1990). *Corporate Culture and Organizational Effectiveness*. New York: John Wiley & Sons.
- Denison, D., Janovics, J., Young, J., & Hee, J. (2006). *Diagnosing Organizational Cultures: Validating a Model and Method*. Lausanne: International Institute for Management Development.
- Dygert, C., & Jacobs, R. (2006). *Managementul culturii organizaționale*. Iași: Editura Polirom.
- Grove, N. (2005). *Introduction to the GLOBE Research Project on Leadership Worldwide*. Accessed on 29.12.2010, on Grovewell LLC Professional Knowledge Center: [www.grovewell.com](http://www.grovewell.com)
- Hofstede, G. (2001). *Culture's consequences - Comparing Values Behaviors, Institutions and Organizations Across Nations*. USA: Sage Publications.
- Hofstede, G. (1996). *Software-ul gândirii. Managementul structurilor multiculturale*. București: Editura Economică.
- House, R., Hanges, P., Javidan, M., & și alții. (2004). *Culture. Leadership and Organizations: The GLOBE study of 62 Societies*. Thousand Oaks: Editura Sage Publications.
- Johnson, G., Wittington, R., & Scholes, K. (2011). *Exploring Strategy. Text & Cases* (9th ed.). Harlow: Financial Times Prentice Hall.
- Nastase, M. (2004). *Cultura organizațională și managerială*. București: Biblioteca digitala ASE, accessed on: <http://www.biblioteca-digitala.ase.ro/biblioteca/pagina2.asp?id=introd>.
- Năstase, M., & Cercel, M. O. (2011). The Role Of Success In Modelling The Organizational Culture. *Globalization and Higher Education in Economics and Business Administration (GEBA 2011)*. Iași: Alexandru Ioan Cuza University Press.

- Neculăesei, I., & Tătărușanu, M. (2008). Romania - Cultural and Regional differences. *Analele Științifice ale Universității A.I. Cuza , LV* (Științe Economice).
- Payne, R. (2000). Climate and Culture. In N. Ashkanazi, C. Wilderom, & M. Peterson, *Handbook of the Organizational Culture and Climate*. Thousand Oaks: Editura Sage Publications.
- Peters, T. J., & Waterman, R. H. (1984). *In search of excellence: lessons from America's best-run companies*. Warner Books.
- Schein, E. (2004). *Leadership, Organizational culture and Leadership* (3rd edition ed.). Jossey-Bas Publisher.
- Trompenaars, F., & Hampden-Turner, C. (2008). *L'entreprise multiculturelle* (a 3-a ed.). Paris: Editura Maxim - Laurent du Mesnil.
- Zait, D. (2002). *Management intercultural - valorizarea diferentelor culturale*. Bucuresti: Editura Economică.
- \*\*\* Human Synergistics Romania. *Cultura organizațiilor românești*. Accessed on 05.05.2011, <http://www.humansynergistics.ro/Cultura%20organizațiilor%20românești-cercetarea%20nationala-40.html>

# AN EMPIRIC COMPARATIVE RESEARCH ON HUMAN RESOURCE MANAGEMENT IN ROMANIA – SOCIALIST AND POST-SOCIALISM PERIOD

**CHAȘOVSCI Carmen**

*Associate professor / PhD., Faculty of Economics and Public Administration /Department for Economics, Business Administration and Tourism, “Ștefan cel Mare” University, Suceava, Romania, carmenc@seap.usv.ro*

**NĂSTASE Carmen**

*Professor / PhD., Faculty of Economics and Public Administration /Department for Economics, Business Administration and Tourism, “Ștefan cel Mare” University, Suceava, Romania, carmenn@seap.usv.ro*

**MOHR Carol**

*Ph.D. student, “Ștefan cel Mare” University, Suceava, Romania, carl@mohr.ro*

**Abstract:** *Romanian scientific literature in the field of human resource management, published after 1990, have encapsulated modern western theories, without considering, all the time, the following: “How are the Romanians thinking or acting after decades of socialist work organization and socialist work ethics?” The present paper presents the conclusions of an empiric investigation based on opinions of people that used to work before 1990 in socialist companies. The results are surprising through sincerity of interviewed people that recognized that the old work style of work behavior is strong influencing the work behavior from today.*

**Key words:** work ethics, post-socialism work behavior, human resources management, socialist influences on labor ethic;

**JEL classification:** D23, J21, J24, J28, O15, J81, P 31, P36, M12, M50

## 1. Introduction

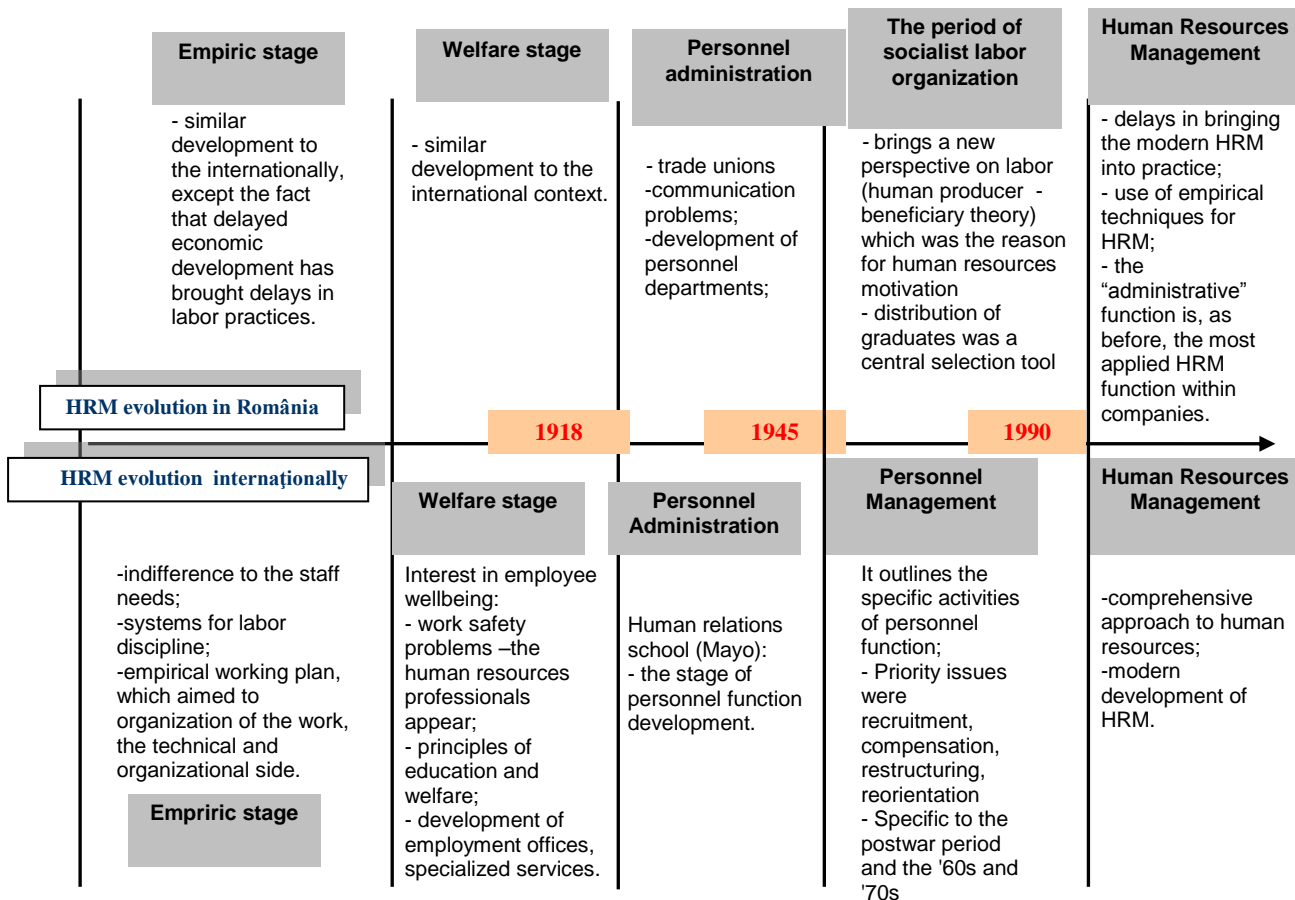
Romania has wasted a lot of time after 1990 in developing and accepting modern human resources techniques, for the coordination of individuals in organizations. In most situations, at the very beginning the change was only at the surface and not in the substance of the problems faced by companies that just changed over night from a socialist management, to a capitalist one. Romania has taken the revolutionary path, both in this field of Human Resources Management (HRM) as in many others, by abruptly adopting the theories applied in Western Europe or in the “modern world”.

The results of a longitudinal research started in 2004 by the authors (Chasovschi, 2006), have showed some gaps between HRM theories from academic papers/ books and the practice of HRM in most interviewed companies. By analyzing the existing literature published by Romanian professionals in the field, we have come to the conclusion that, after 1990, the human resource management theories have encapsulated modern western theories, without considering all the time the following: “do these theories completely apply to Romanian organizations?”, “Can they be applied, as such, to Romanians, since they have been subject to specific socialist work ethics (and have thus shaped their mentality accordingly)?”.

Romania has wasted a lot of time in developing and accepting modern techniques of coordinating individuals in an organization. It is the case not only Romania, but of other post-socialist countries, that had reconstructed the economies in a rush move toward private market. It is true that Romania loses a lot of time, or like some other authors have mentioned, “HRM has had a late development in Romania” (Prodan and Clipa, 2008). If in theory, Romania joined the western countries in HRM and reached the same level of development (Manolescu, 2003; Lefter, 2007), the practice of HRM is still cached in old organizational frames, in formalism and administrative tasks.

As can be seen from the graph below, if the development of management theories in the capitalist world has had an evolutionary trend, Romania has taken the revolutionary path, both in this field and others, by abruptly adopting the theories applied in Western Europe.

Figure 1: Comparative perspective of HRM evolution in Romania and worldwide



Source: Chașovschi, C. - Research on Human Resources Management in the Regional Development Context, E.D.P. Printing House, București, 2006

In the early 1980, when Europe was deepening into polemics such: Personnel Management vs. HRM, Romania's workforce was lead by rules dictated by socialism system that has directed the evolution of HR function on a different path. After 1990, the recovering process was quite slow, searching to adjust the practices to the modern theories from western countries. According to these, Human Resource Management is a combination of managerial decisions and practices that affect and influence directly human resources or people who work for organization (Shaw et all, 1999), a specialized function of management, responsible for the determination and implementation of policies and procedures, for determine the stages of the recruitment cycle, in a manner that contributes to the well-being and quality of work of employees and organizational efficiency.

The problems we have addressed in our research and in this paper are:

- Lack of documentation and research on work ethics, business ethics and management techniques in the socialist period;
- Poor research on the influence of socialist work ethics on the behavior of human resources and on the present day work ethics;
- Need to adjust the HRM theories, taking into consideration a complete diagnosis of the characteristics "working man" in Romania;
- Need to identify means of balancing the present day HRM theories, depending on transitional characteristics of Romanian workers (working behavior and work-mentality formed during the socialist period).

The problematic described above was not specific only for Romania, but for the other ex-socialist countries, from Central- and South-European space. Several papers helped us to conclude that for many researchers, an important issue to deal with, was the business ethic in socialist or post-

socialist countries (Bohota, 1997; Hoivik, 2007; Chan, 2008) or the differences in business ethic due cultural differences (Lin, 1999).

## 2. Objectives and methodology of research

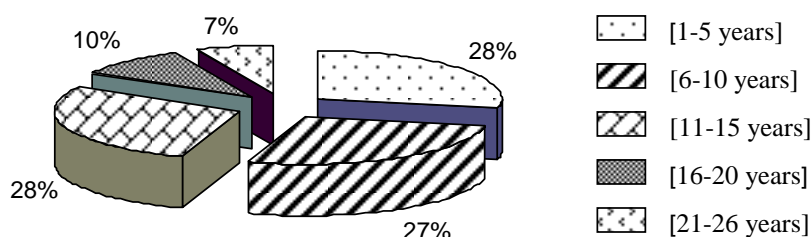
The objective of the research was to establish a preliminary investigation of the issues described above and:

1. to investigate the perception of the formal employees in socialist companies, about the personnel management in the socialist period versus the current period
2. to find out in so far the socialist ethic of labor (or the work ethic established in the years of socialist organizations) have influenced to current work ethic.

We have conducted the research by utilizing direct research methods (structured interviews) and indirect methods (enquiry-based surveys) that were applied in the investigation of 160 individuals. The number of respondents was sufficient for an empiric research, but for a more accurate picture of reality, in the future research we intend the select a higher number of respondents (in the following year the study will be extended).

The distribution of respondents after the seniority accumulated before 1990 is presented in the next figure. The most of them, 72% have worked more then 5 years in socialist period.

**Figure 2: Respondents structure depending on the seniority accumulated before 1990**



The questionnaire included four sets of questions, as follows: **(A)** Questions about professional activities performed during both periods; **(B)** Questions regarding the present place of employment; **(C)** Questions about the general opinion on human resources and work ethics; **(D)** Questions concerning the functions of human resource management. Questions were addressed in such manner so that the subjects were able to refer both to the period before, and after 1990.

The “communist heritage” manifests itself in various employee related issues: their attitude towards work and upper management, the use of working hours, their motivation to work, their desire to get promoted. There are contradicting opinions about the influence of the working patterns of the socialist era on the working demeanor of today in Romania, and this will also be visible in the research outcome.

Even though twenty years have gone by, the past still influences present circumstances. This is mostly due to the fact that the past and its influence on society as a whole and, obviously, specific sectors such as working conditions and work management in enterprises, still remains undisclosed or taboo.

There are contradicting opinions about this influence: some believe it to have been positive because the socialist work ethic imposed discipline, but most people think it had a negative impact because of the negative habits that were inherited, as for example taking from company properties or

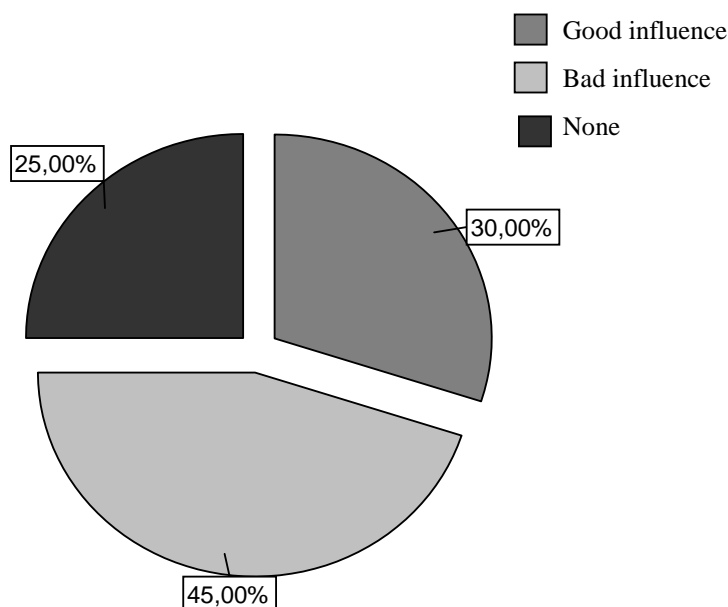
non-intensive work style). This “heritage” can only be counterbalanced by forsaking the concepts and practices of those who have experienced the communist way of life.

### 3. Empirical Results

The specific field of HRM has had many names in Romania – work management, work organization, work allotment, the personnel function etc. When the term *management* first emerged and was included in numerous fields of activity, it was only natural that it should also be used when referring to the correct organisation of human resources with the aim of achieving higher outcome.

The “HRM” notion replaced some 30 years ago worldwide the “personnel management”. It was only later on that the concept of HR and HRM was accepted in Romania. Before 1970, the “Work/Labor Code” used the term **employee**. The text of the law no. 1/1970 used the term **wage earner**, the law no. 2/1971 “on the professional training of workers in socialist units” used the term **worker**, and the law no.12/1971 made use of the expression **employed staff** (Beligradeanu, 1978).

**Figure 3: The influence of the socialist period on today work style and ethic**



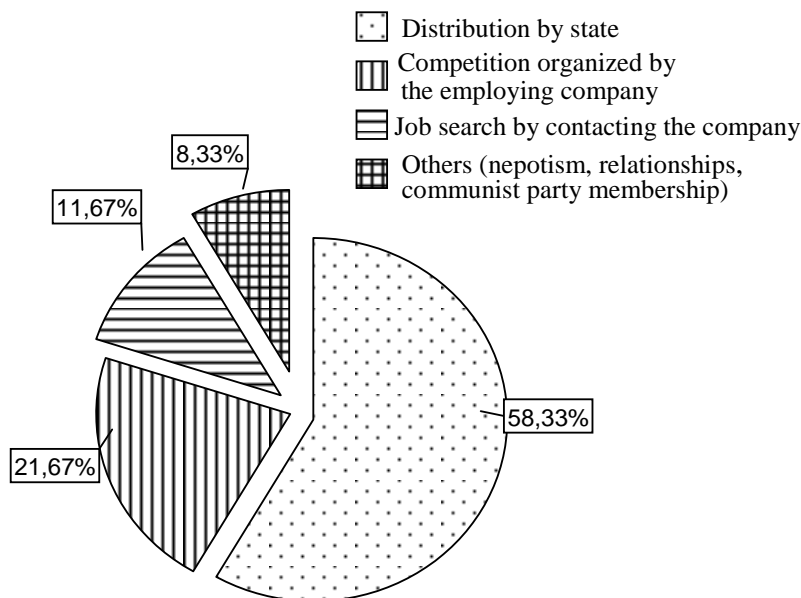
The differences and similarities between socialist human resource management and capitalist human resource management can be easily detected by comparing the manner in which each function (staffing, development of HR, motivating, and career development) was carried out.

It is a fact that the past is influencing the present. Regarding the influence of the working way in the socialist period upon the today's working style the opinions are divided as can be observed from the previous chart (Figure 3).

Most of respondents agree with the fact that the working style from yesterday had a negative influence. We should assume that a large part of the formal “socialist” employees were affectively attached by the time gone, and that fact influenced their answers. They declared that the organized, planned and strictly controlled way of labor, imposed a labor discipline that should be preserved. People who think that there is no influence believes that with passing time the communist mark is gone, society adapting to current conditions imposed by capitalism.

The responses regarding the staffing function, showed that the need for human resources during the socialist period was being met by: **allotment** – upon graduation, depending on the qualification and the final examination grades; **candidateship** – when there were several candidates for the same position and **petition** – addressed to the organization offering employment.

**Figure 4: Responses regarding the staffing function in socialist period**



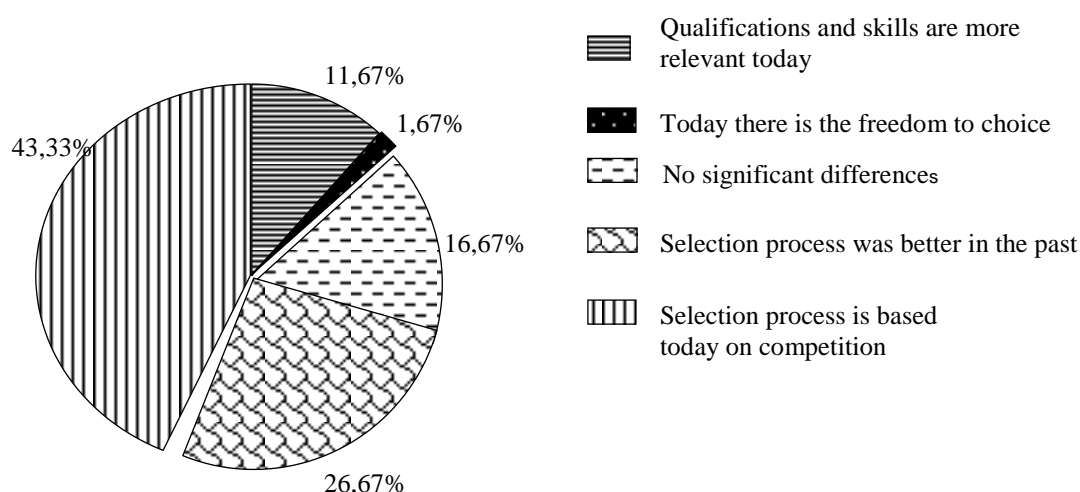
Human resource management is still a deficient practice in Romania and, therefore, promotion or hiring is still sometimes based on non-professional techniques. The fact that there are employees who benefit from management protection is the reason why these individuals do not perform their duties efficiently in the place of employment.

Șerban Beligrădeanu debated the Law no.12 of October 21<sup>st</sup>, 1971, on the employment and promotion of personnel in socialist state units, in his book “Work employment and promotion” (Beligradeanu, 1978). This law stated that hiring was dependent on the following criteria: education, seniority, previous work experience, test results, social behavior. Education, seniority and work experience of the applicants are still of paramount importance for employers today.

Socialist state units used an annual assessment system for technical, economic, administrative and other personnel, in order to identify the possibilities and prospects for the development and promotion of the employees. The results were kept in the personnel and education department of the unit. The following criteria were used in the evaluation: results achieved in fulfilling the duties assigned; level of professional training and education, interest in improving professional knowledge; personal qualities – initiative and resourcefulness, work discipline, commitment and perseverance in fulfilling tasks; professional reputation; concern for the proper development of the organisation, vigilance in defending the socialist property, law observation and protecting the state secret; behavior at work, at home and in society, engagement in social activities, outlook on the general interest of the country.

According to interviewed people, all this criteria were applied in a very formal way, only to assure in a declarative manner a fair leading process. The function that was used at most, as expected, was the administration of work force and the payment of employees (according to different methodologies that were applied in different time frames).

**Figure 5: Differences in carrying out recruitment and selection of human resources in the past and today**



The percentage of 16,6 presented in the chart above, at the section “selection process was better in the past” is referring not to the selection techniques, but is related to the security of employment, and to the fact that each person was employed, in a “comprehensive labor field”, the state waiting as pay back loyalty and enthusiastic support (Ivan, 2009).

**The motivation of human resources** during the socialist period was identified as quite deficient. Some authors believe that one of the underlying causes for this lack of interest was technological progress that simplified tasks and created jobs that did not offer any contentment and did not challenge the intellect (Berescu, 1969). That proves the way of thinking from that period and was not necessary the right perspective.

Another reason for lack of interest in work assignments, identified by several respondents, could be the use of negative motivation, in many creative ways (self-criticism in the meeting of the communist party, newsletter of the company, public exposure in the company’s materials a.o) (Lane, 1987; Ivan, 2009). The Works of the Central Committee of the Romanian Communist Party stated that “the main interest of the party and of the state is the further development of the financial co interest system – an important level for stimulating the energy and the initiatives of the masses, for upgrading qualifications and for the judicious use of the working hours”; therefore, work stimulation was closely connected to financial liability for the damage caused by lack of personal involvement. (Berescu, 1969).

The motivation of human resources plays a more important role today since the implementation of motivation theory into management practice is vital for successful entrepreneurship, for the coordination of a management team and for the pursuit of the organizational goals.

Management theory comprises hundreds of approaches developed by various analysts, each of them trying to identify what triggers the employee’s will to fulfil a work task or not, his ambition to



reach a definite objective and what motivates employees in the work they perform (Burciu, 2008; Manolescu, 2008;).

Another problem that was analyzed is employee loyalty. This entails security, health care, counseling and sometimes even solving personal problems. Work discipline was held in very high respect during the socialist period. Any absence or delay in fulfilling tasks was seen as economic loss; employees were required to attend to personal problems outside their work schedule. Leaders did not get involved in issues not related to the work environment. Anyway, the most highest motivation message that was used as ultimate stage of the socialist evolution was the vision of the “new man”/ “a omului nou”.

#### **4. Human resources management and influences from the past socialist ethic. An open “battle field”.**

Cordeiro has established some hints for ethics in transitional economies, defined as societies that are moving from socialist centrally controlled economic systems (Cordeiro, 2003). He referred mostly to the changes that occurred after the 1990, due the actions implemented after the soft movement to capitalist, described as a dramatic economic transition (Buck, 1998).

The transition period is over and market economy is currently in progress, but many sectors are still under construction, which is also the case for HRM, excepting the most multinational and large companies. Certain changes are necessary, such as:

- The recruitment, selection, integration, training and payment of the personnel must be exclusively based on an objective evaluation of the performance;
- The employee must undergo training in order to permanently maintain the ability to perform appropriately;
- Several human factor variables must be considered in order to maintain high standards of motivation: feelings, culture, needs.

One of the significant changes that have been employed at present is the acknowledgement of the importance of human resources for an organization. The modern concept of human resource management implies that people are not hired just to fill some available positions, but that each individual plays an important part in the enterprise.

The management structures of Romanian companies are gradually envisioning the fact that having talented, productive and efficient employees is no longer sufficient; human resources must be preserved and capitalized. Therefore, it is necessary to develop and implement some human resources strategies. Subsequently, the implementation of these strategies cannot be possible without the collaboration between employees and management.

In order to learn how to encourage values, the companies should first of all to renounce to the obsolete practices that tend to be transmitted from one generation to the next; truly democratic work ethic and HRM techniques should be embraced, not only in theory, or in a declarative manner, but in practice too.

The interest in this particular subject has been scarce and was mostly expressed by sociologists and anthropologists (Heinz, 2005; Ghilezan, 2008) and not necessarily by economists or human resource specialists. The subject has been incidentally approached by renowned authors and public figures who investigated issues related to work ethics in our country (in books or other type of published material) (Deletant, 2006; Liiceanu, 2009).

Unfortunately, most Romanian theoreticians disregard or ignore the opinions of the above mentioned, thus dismissing the importance of a creative adjustment of modern management theories to the specific nature of Romanian employees.

Many of those we have questioned on the matter admit that the socialist had a negative influence on present working practices. Their answers particularly made use of the word “mentality” (“the former mentality”, “communist mentality”, “Romanian mentality”).

Monica Heinz dedicated an entire chapter to the “Romanian mentality”, in her work “Work ethics for present day Romanians” (Heinz, 2005). She believes this particular word is always being used as an excuse for the economic situation in Romania shortly after the revolution (the revolution hadn’t brought along the changes it foretold and the economic situation had gotten worse).

The main characteristics of the former socialist mentality still influencing the working patterns of the present: taking advantage of company goods, postponing the completion of duties at work.

### 5. Conclusions

Numerous changes were introduced in the field of human resource management after 1989. Niculae Niculescu emphasizes the important role of human resources during the transition period, in his work "Human resources under reform" (Niculescu, 2002). The author identifies, from a demonstrative standpoint at least, the main objectives of HRM during the transition period as follows: the accumulation, capitalization and development of human capital; the conception of instruments and levers that can ensure the ascending trend of the national economic assembly within a matrix of valuable economic production based on knowledge; the contribution to the identification of the means to increase work productivity based on knowledge and specialized expertise; professional training and development will be based on individual and frequently updated training programs.

The transition in the field of human resource management was highly important, because it not only addressed the more efficient allocation and evaluation of the national human resources, but it also relaxed the system and triggered changes in other sectors of the economy as well; human resources were the main growth factor in post-industrial capitalism. Still, the following questions must be elaborated upon:

- How much of the formerly used patterns in human and employee management still remains in people's minds and behavior?
- How were these patterns transmitted as behavioral codes and models to the next generation?
- Do we have to consider these patterns in HRM theories applied in Romanian organisations?

We can suppose (not yet conclude) that the formal employees have developed two sets of behaviour: one that was required by the regulations and socialist work ideology of the place of employment, and a derivate behavior of adjusting to and avoiding the reality that was forced upon them.

These sets of behaviors have been gradually acquired and they have forged mentalities and attitudes regarding work and society. This specific issue should be analyzed and considered in the drafting of management methods and techniques that meet the needs of 21<sup>st</sup> century Romania.

As conclusions, in order to have efficient Human Resources Management (HRM) practices, that will lead to better results at micro level, the effects of several decades of socialist period should be taken into consideration in future theories and scientific HRM works.

### 5. References:

- Beligrădeanu, Ș. (1974) *Work Employment and Promotion*, Bucharest: Scientific Publishing House, p. 105-106
- Berescu, G. (1969) *Work Ethics and Way of Life*, Bucharest: Academy of the R.S.R. Publishing House, pp. 65, pp. 79, pp. 86.
- Bohota, M. (1997) *Business Ethics in Central and Eastern Europe with Special Focus on the Czech Republic*, in *Journal of Business Ethics* 15: 1571-1577, Kluwer Academic Publishers
- Burciu, A. et al. (2008) *Introduction to Management*, Bucharest: Economic Publishing House, pp. 375.
- Certo, S. C. (2001) *Managementul modern – Diversitatea, calitatea, etica și mediul global*, București: Editura Teora, București, pag. 673
- Chan, K. et al. (2009) *Business Ethics in Greater China: An Introduction*, in *Journal of Business Ethics*, 88: 1-9, Springer Verlag
- Chașovschi, C. (2006) *Research on Human Resources Management in the Regional Development Context*, București: E.D.P.
- Cordeiro, W. P. (2003) *Should Business Ethics Be Different in Transitional Economies?*, in *Journal of Business Ethics* 47: 327-334
- Deletant, D. (2006) *Romania under Communist Rule*, Bucharest: Civic Academy Foundation
- Elliott, T, Regal R., a.o. (2001) *Design and Validation of Instruments to Measure Knowledge*, ProQuest Central, p. 1586-1588

- Fisher, C., Shaw., J.B. (1999) *Human Resource Management*, Boston: Houghton Mifflin Co.
- Hoivik, H. von (2007) *East Meets West: Tacit Messages about Business Ethics in Stories Told by Chinese Manager*, in *Journal of Business Ethics* 74: 457-464, Springer Verlag
- Heinz, M.(2007) *Work Ethics in Today's Romania*, Bucharest: Curtea Veche Publishing House
- Huczynski, Andrzej, Buchanan, D. (2001) *Organizational Behaviour – An Introductory Text*, Harlow: Prentice Hall, Harlow, p. 674
- Lefter, V. et all. (2007) *Fundamentals of HRM*, Bucharest: Economic Printing House
- Lin, C.Y. (1999) *Business Ethics in Taiwan: A Comparison of Company Employees and University Students*, in *Business and Professional Ethics Journal* 18 : 69-75
- Ghilezan, M. (2008) *Theft in Romania*, Bucharest: Corint Editing Group
- Liiceanu, A. (2008) *Through the curtain*, Bucharest: Polirom Printing House, pp.49, pp. 69;
- Manolescu, A. (2003) *Managementul resurselor umane* . Ed. a 4-a. București : Editura Economică
- Mondy, R. W., Noe, R. M. (2005) *Human Resources Management*, 9th Edition, New Jersey: Pearson Education
- Niculescu, N., Dionise, C.(2002) *Human resources under reform*, Iași: Junimea Publishing House, pp. 23-26.
- Prodan, A., Clipa C., Clipa A.(2008) *The transfer of Romanian Human Resources Management practices in Multinational Companies*, MIBES 2008, p. 340
- Storey, J (1995) *Human Resource Management: A critical Text*, London: Routledge, p. 23.

# UNDER THE VEIL OF A GLOBAL ECONOMIC, FINANCIAL, POLITICAL AND SOCIAL CRISES

**CHEPTEA Madalina**

*Ph.D. student, Faculty of Economics, Academy of Economic Studies, Bucharest, Romania*  
[madalina.chepte@catfinanciar.ro](mailto:madalina.chepte@catfinanciar.ro)

**BODISLAV Dumitru-Alexandru**

*Ph.D. student, Faculty of Economics, Academy of Economic Studies, Bucharest, Romania,*  
[alexandru.bodislav@infinitumgroup.com](mailto:alexandru.bodislav@infinitumgroup.com)

**Abstract:** *The year 2011 has been a year filled with issues related to financial, economical, socio-political crises; the Middle East and Europe have been comprised by socio-political movements as well as economic matters, while USA are dealing with one of the most severe social periods from the Great Depression. This paper is an approach for presenting the social, political, economic, cultural and religious development of the global economy, a big picture that brings into the spotlight the actual global interconnectivity status, who are winners, losers and whistle-blowers that create every day economic life and the "love for your neighbour".*

**Key-words:** Arabic Spring, economico-socio-political crisis, democracy, governmental decision, social movements

**JEL Classification:** F51, Q34.

## 1. Introduction

In a world that claims to be without frontiers people had almost forever the urge to rule over other people, to impose principles, customs, traditions to change mentalities and impose lives that were far from being wished for.

Who gives someone the right to think, to feel, to decide for another human being?

Who gives someone the guarantee that the decisions taken on the behalf of other people are beneficial for those people, or even for both parties?

Do we have the right to consider ourselves superior to other human beings and choose in the name of this self-considered superiority for both?

Each person, each people has a set of traits that makes him/her/it unique, having own dreams and expectations and an own vision over life.

We are the same but so different. Each of us is a world in itself.

The entire world has watched breathless the "Arabian Spring", "Arabian Summer", the "Arabian Autumn", "Arabian Winter" and probably in a few days it will be watching the "Arabian Spring" again. All the political and social moves in Arabic countries have transformed 2011 in an "Arabian Year". And as if the global economic and financial crisis was not enough, an even deeper crisis, a social and political crisis has turned human-beings upside down during the past couple of years.

## 3. The Global Individualism Entanglement

Each of us fighting for something different, but fundamentally the same: the right to a better life, for some better meaning a better, more prosperous live, for other better meaning the freedom of word, the freedom of thinking and acting.

Occidental countries looked the socio-political movements in Arabian countries Egypt, Iran, Libya, Tunis, Syria as a struggle towards a democracy of occidental type. Most of these Arabian countries struggled against authoritarian-dictatorial regimes, having leaders that were leading for decades. Occidental people put these socio-political movements on the expense of a wish towards democracy as opposed to despotic regimes.

The present reality in Egypt, Tunis and Libya proves us that it is not this urge towards an Occidental democracy that animates people, but something else, something that nor the analysts neither Occidental politicians can point at.

Arabian countries have been for centuries under the influence of Occidental civilizations, who tried to “civilize” these people, by imposing their own traditions and culture, omitting completely the fact that these Arabic countries had their own value system, their own social system.

Why did Occidental people considered Arabian populations to be living in the dark? Did that “darkness” really exist or was it necessary for it to exist in order for those populations to be easily manipulated. Petrol runs through that “darkness”, that if not existing was impetuously necessary to be created in order for interests to be accomplished.

Tradition was destroyed and disdained, and the final product was a strange mix between traditional and adopted elements.

When these people became independent again, they tried without success to follow what others have tried to impose. But, the final results were some not-functional democracies. Probably, one of the few merits dictatorial rulers in these countries had was that they succeeded in ensuring a socio-political functioning on the remains of the colonial system.

Still, the population decided for something else. Traditional values and culture never lost their permanence and presence in people conscience, and now it is the time for them to be revived.

Thus, we observe amazed the fact that one day after Gaddafi’s execution, the Islamic Sharia Law is re-introduced in Libya, Islamists win free elections in Tunis and violence without precedent are registered between Muslims and Christians in Egypt, showing the Cairo leaders disinterest in interfering. Islamic parties, and also Muslim Brotherhood gather million of people at public prayers. In Yemen the local correspondent of Muslim Brotherhood and similar groupings gather disciples in a very fast rhythm. Iraq also has a constitution that is very similar to Sharia or Koran.

### **2.1. The outsider influence for the external benefits**

It is very interesting that Saudi Arabia, the most important ally USA have in the Arabic world function under Sharia, of course with accents of modernizing ancient law. Can we draw the conclusion that this promoting of Sharia is in fact, a way of maintaining a strict control in the area?

And since or world is governed by interests, may this new Occidental paradigm be meant to serve American interests?

A fact is sure: the Orient becomes more and more religious. And history has proven that the political-religious mingling is not an inspired or successful one.

And we wonder if all these movements were really a free wish of the people, or were they animated and supported by Occidental former rulers?

All these movements were lighted by a socialization web platform-Facebook. So, someone or something must have concerted a common movement for Arabic countries.

During the Egyptian movement against Hosni Mubarak in April this year, drapes with the symbol of the Serbian Otpor movement were seen in Tahrir Square, namely a black background with a white clenched fist on it. One of the participants, Mohammed Adel, gave an interview for Al Jazeera, admitting that he has been in Serbia, where he has been instructed in organizing peaceful manifestations and in opposing the brutality of security services. He came back to Egypt in 2009, the year with severe economic and financial consequences all over the world due to the crises, ready to instruct other activists and act a year later (Morgenthau, 2007). Otpor is a youth movement that played a crucial role in the ex-Serbian president Slobodan Milosevici departure. Another organization also financed by USA State Department and which is behind Arabic Spring movements, also located in Belgrade, Serbia, is CANVAS, The Non-Violent Applied Actions and Strategies Center.

Another example is Syria, where we have on the 15<sup>th</sup> of March an endless year of violence against a poor and hungry people. A year of people dying every day. Is population so strong as to resist unconceivable torture and violence, to face death on a minute basis without being supported by an exterior force?

And why such a great anxiousness to get rid of former leaders using violent solutions as if their presence is a threat for a present entity?

Is petrol still the midst of the present socio-political crisis in Arabic countries? For sure yes. And this Arabic Spring does not lead towards democracy, but towards more prosperous business with the new “owners” of petrol and gas resources in those countries.

According to Zbigniew Brezezinski, “For America, the chief geopolitical prize is Eurasia. For half a millennium, world affairs were dominated by Eurasian powers and peoples who fought with one another for regional domination and reached out for global power. Now a non-Eurasian power is preeminent in Eurasia—and America's global primacy is directly dependent on how long and how

effectively its preponderance on the Eurasian continent is sustained".(Brezezinski, 1997), Eurasia being the globe's largest continent, detaining two of the world's three most advanced and economically productive regions. Eurasia entails 75 percent of the world's population, most of the world's physical wealth, both in its enterprises and underneath its soil and about three-fourths of the world's known energy resources.

William F. Engdahl, the American German economic researcher states that the riots in Middle East and North Africa were announced in 2003 by George Bush at a G8 reunion, and named "The Middle East Extended Project" (Engdahl, 2007). This project had as goal keeping the Islamic world under control, under the pretext of "democratizing" it from Afghanistan through Iran, Pakistan, oil-producing countries in the Persian Gulf, and all along North Africa to Morocco. The final goal for a USA in the midst of economic crises and dollar decline which they unsuccessfully try to hide is to take this region's resources in order to block China and Russia's ascension, and to maintain a single super-power, with influence over the entire globe.

Engdahl shares Brezezinski's opinions related to the reasons behind the concerted movements in the Islamic world: the immense wealth, resources and investment funds, and second militarizing oil resources as those in Libya and the so-called Republic of South Sudan. These two would influence directly China's growth (Engdahl, 2011).

What is very interesting to follow is the way USA intends to interfere in rebuilding Islamic countries economies. Will it be by the help of the International Monetary Fund and of the free market economy, as they did in Europe in order for occidental banks as well as financial corporations and agency to get a free hand in accomplishing their own goals?

Libya is in ruins, and the young so-called democracies in Egypt and Tunis came with weak economies. Occidental powers and especially Pentagon are preoccupied not to restore normality, but to own military control in the area.

In 2006, China had a diplomatic action in Africa, by inviting 40 state officials from African people in Beijing. That was the moment when huge businesses involving oil exploitation, hospitals building, and investments in infrastructure. China obtains 300 billions dollars per year from commercial incomes, and not having big enough markets to absorb all these money, finances USA, by purchasing American bonds, ironically financing USA's wars which are inevitably against China's interests and national security.

Engdahl concludes that the only chance USA has in maintaining dollar is to find new fortunes to support on. Unfortunately "Arabic Spring" seems to be nothing else but privatizing the huge fortune of the Islamic world.

Europe's actual situation is not very far from that of the Islamic world. Goldman Sachs in 2002 burdened Europe with a financial crises, severely striking Euro, in the attempt to maintain dollar's strength. In order to defend the American dollar Wall Street, the American Treasury and of course Federal Reserve concerted the Greek crises leading to the actual economic and financial disaster in Europe.

And will USA resume only to economic, financial and social movements, or will they reach the dawn of a new war? Otherwise, why will they build American military basis all over the world? Are they preparing for a war with China or Russia?

### **3. The Global Economic and Financial Crises and the Socio-Political Movements in Islamic World**

It is very interesting to see if there is any connection between the global financial and economic crisis and the socio-political movements in the Islamic World. 2011 has been an intense conflict year. On the one hand there are the riots in Tunis, Egypt, Bahrain, Yemen, Syria, Libya, and on the other hand there are protests against economic and social measures imposed in countries like Greece, Italy, Spain, Chile, Israel, and Occupy Wall Street Movement, starting from New York and reaching London, as well as other cities and countries.

We face what seemed to be up till now invincible Islamic rulers, world banks, European Union, crashing, leaving the political class speechless.

In the same time, very different personalities and people, in different corners of the world seem to share common goals and ideals.

Paul Mason, Economics editor at Newsnight, BBC's blog, tries to give an explanation for this in a blog called "Twenty Reasons Why It's Kicking Off Everywhere", written in February 2011:

“At the heart if it all is a new sociological type: the graduate with no future, ...with access to social media, such as Facebook, Twitter and Yfrog so they can express themselves in a variety of situations ranging from parliamentary democracy to tyranny,...they are not prone to traditional and endemic ideologies: Labourism, Islamism, Fianna Fail Catholicism etc... in fact hermetic ideologies of all forms are rejected,... they all seem to know each other: not only is the network more powerful than the hierarchy - but the ad-hoc network has become easier to form,...the common theme is dissolving centralized power, but also claiming for “autonomy” and personal freedom.”

Thus, these are the characteristics of people that took initiative in spreading protests' message. Protesters in different corners of the world interact: on the 26<sup>th</sup> of October representatives of Occupy Wall Street have been visited by a group of activists, reunited by the Egyptian movement on the 6<sup>th</sup> of April on Facebook, who mingled the American camp with the Tahrir Square spirit. In November 2011, people demonstrating in front of St. Paul's Cathedral have connected by the help of a video life transmission with pro-democracy activists in Syria.

Is it possible that a new, common, global government be in stake here? Is this the final goal of all these socio-political movements and a welcomed end to the actual crises? Experts say it is.

### **3.1. Good Government, bad development of the followed path**

To see the global cultural differences we can observe the opposite development of China's governance system and Egypt's governance system. The economic growth created in China is based on the hard imposing of Beijing against any technocratic development of politics. Egypt had as ruler Hosni Mubarak which molded in the last 10 years of his leadership a technocratic form of governance that on paper seemed to be prospering and strictly because of the business influence and mainstream brought in the government by installing as ministers business men. This accelerated Foreign Direct Investment in Egypt from 1 billion dollars in 2004 to 13 billion dollars in 2008, and last year's economic growth was of 5.1%, an excellent result considering the regional development and the internal social situation (Dickey & Nadeau, 2011).

If we consider Pakistan the financial leadership between President Pervez Musharraf and finance minister / Prime Minister Shaukat Aziz (ex-Citi banker) accelerated consumption of Pakistan until they obtained an economic growth of 7% in the 2004-2006 time frame, especially to imports and the revolution in the telecom industry. This accelerated and well managed country led to the foreign assistance offered by the U.S., Europe, Japan and the Monetary International Fund, the Asian Development Bank, and the World Bank. This financial leadership of Aziz and the foreign assistance transformed Pakistan in a moneycratic economy (Dickey & Nadeau, 2011). Everything worked perfectly until Musharraf was abusive in using his power and influence; this brought the end of the smooth economic development and the beginning of the end of a new dictatorship.

## **4. The global culture creates the multiculturalism pressure**

Arjun Appadurai is the economist that researched on the development of globalization and the pressure created on the culture of a state or on the development of individuals. Appadurai created the idea of ethnoscares which represent the “landscape formed by people that are in continuous flow: tourists, immigrants, refugees, exiled, unregistered workers” (Appadurai, 1996). These individuals create the state politics and the politics between states, not only through stable communities and networks and through the migration of the work force. This migration for assuring every day's minimum existence level is stressed by the international capital, which creates a second tier of influences on needs development, production and technology.

On technology, Appadurai, created the idea of technoscares that is responsible for the spreading of technology at a global level, because technology erases the cultural boundaries and creates the fastest interconnectivity, and another unbeatable factor is the idea that technology does not need an economic scaled distribution, political control or market logic and only money flow, political pluralism and labor force availability (Appadurai, 1996).

All these presented above are completed by the idea of free circulation of capital. The distribution of global capital is the third concept created by Appadurai, the concept of finanscares: the landscape formed from exchange markets, stock markets and speculative instruments (derivates, CDOs and CDSs). The ethnoscares, technoscares and finanscares create through their relations the idea of irrationality of development under the pressure of different cultures (Appadurai, 1996). They can work well together, but only if taken as a pair.

Another concept is the idea of mediascapes, which represent the distribution channels and medias for producing and disseminate information (newspapers, magazines, television stations/networks, movie studios). The mediascapes give the world the image from another part of the world and they can be used for manipulating the global audience (Appadurai, 1996).

The fifth concept created by Appadurai is the ideoscapes and is derived from mediascapes. Ideoscapes are the ones that result from reading articles or viewing image or videos on the facts that “move” the world, because they are used to influence the politics and the ideologies of the state and could to overthrow the political government of a state.

The idea of “scapes” (spaces) created by Appadurai is to create an easing for multiculturalism to the global culture based on fluid forms, undefined as shape, shapes that characterize not only the international capital but also the way individuals dress in some parts of the globe. This concept is the long term foresee on the historic, linguistic and political positioning that create the actual and future development of nations (states), companies, multinationals and foreign communities, and also for interest groups or ideological groups (religious, political or economic).

Appadurai adds the idea that globalization is not just a word used for capitalism in the evolution of nation - states, it could be considered the molding of reformist, for or against movements, for example Occupy Wall Street. All these can evolve into some negative aspects of globalization, like violence, marginalization or rising inequalities (Appadurai, 2001). The negative aspects can appear from the approach used in the idea of globalization: top - down or bottom - up, because the second approach includes the individual in the development of globalization. Three concepts are brought to enhance the idea of negative evolution of globalization.

The first concept is based on the national genius, the foundation of the birth of a nation – state that is created with enormous costs, war, linguistic and educational uniformity and the subordination of local and regional tradition (Appadurai, 2006). This national genius is eroded by globalization because it is undermined on the singularity level of the individuals and territories and implements the idea of free trade and development on a global level.

Another concept used is that globalization puts under pressure the weaknesses of a state and destroys culture by erasing the sovereignty of a state or the welfare illusion, the idea that violence is a result of a well defined identity can be stressed because it creates the potential for the collision between incertitude and incompleteness (Appadurai, 2006).

The third concept is based on the narcissism of small differences that exist between nations that is similar with nationalism and can be seen on the behavior had by a nation with their minorities, because those minorities represent the idea of incompleteness of national purity (Jones, 2011).

## 5. The Global Vantage Point of Governments

Governments are entering the trap of globalization that produces and amplifies national deindustrialization and the increase of social inequality, the only solution being attracting global investment (globalization is a two-ways street) in the national economy through a limited fiscal policy, an efficient and applied legal framework, well defined property rights, optimal monetary policy (optimal with the meaning of keeping a low inflation rate). The only positive accelerator that can be implemented by the government for attracting foreign capital and for obtaining economic growth is sustained continuous investment in the national educational system. It is needed an efficient and state-sustained framework at the beginning, because on the long term the private sector will invest in the educational system (Fligstein, 1999).

The pressure created on a national economy from the globalization perspective drove to the appearance of a socio-cultural capitalism, one in which social inequality is rising, governments cannot manage to apply correction measures on the global influences and the pressure of **skilled meritocracy** will grow to be the defining element of the **global capitalism** (Bodislav, 2011a). The emergent or pre-emergent area is in a continuous change, but this area would need an argumentative standard for lining all the changes and challenges created by globalization. State unions decrease the number of measures that can be taken to maintain a sustainable rhythm of economic growth and erase the cultural identity of one of the oldest cultures in mankind, in Europe the Greek civilization is the cradle of life, economy and philosophy, and in Asia the Persian civilization from Iran and Iraq that are the buffer between the Western civilization and Eastern civilization, or the Arabic civilization in Iraq were we had Uruk, the flourishing city from the Epic of Gilgamesh that is the actual Baghdad and the famous Babylon, the cradle of diversity and multiculturalism.



There are two normative problems that pop out: globalization is suppressed by the resistance to opening that can be justified through the pro-social economic policies that protect the internal market (the labor market especially). Free trade is the engine for economic growth for the national companies (as long as competitive trade relations exist companies will have a long life) and for the wealth of nations (in my opinion I consider that any commercial relation between a country with other countries lowers the chances to non-cooperation <war> in case of situational asymmetric incapacity in the region or global), but there wasn't found evidence that can confirm the idea of eliminating the social security safety net will lead to systemic social insecurity (the establishment of the social fear sentiment, fear for assuring tomorrow economic existence for the individual) that leads to the stagnation of economic growth (Bodislav, 2011a).

### 5.1. The Global Debt of the U.S. and the Global Interconnectivity

The United States of America had and has an economic vision that wants to implement an answer to the detour taken from the **“good path”**, although everything was adrift and with disastrous results for the economy, by trusting **“the common sense”** of Wall Street. But this common sense failed in the moment when they claimed the state bailout, and at the exposing of the problem to pay for their deeds, they answered that an immediate pay would lead to prolonged recovery of the banking system with major influences on the American economic system and through the global connection, of the global one. The non-involvement of the state in financing the system's problems would have let the American deficit with a couple of hundred billion U.S. dollars lower, because the financial crisis consumed 1 trillion U.S. dollars in the bailout, 1.2 trillion U.S. dollars through the outsourced inflation through massive capital infusion of “new” dollars – 5 billion/day for 120 days – 1<sup>st</sup> part: November 2010 – March 2011, 2<sup>nd</sup> part: March 2011 – July 2011 and a future unknown 3<sup>rd</sup> part: January 2012 – May 2012, meaning another 600 billion U.S. dollars brought in the deficit, that have as a complementary part the Operation Twist that led to shifting the payment of some short term debts of 400 billion U.S. dollars on the long run this path created pressure for the interest rate and lowered the rate of inflation, to which we can add the 10 years of war, summed up to almost 5 trillions, that were partially covered through the infusion of capital in weapons and producers of motorized battle equipment, respectively Halliburton (company owned by Dick Cheney, the ex-vice-president of the U.S.A., during the Bush Jr. Administration) and Lockheed Martin; a total amount from the deficit that is negatively financed on the economic-military branch of 7,6/8,4 trillion U.S. dollars, sum that represents almost 53/59% from the actual U.S. deficit, that represents a degree of indebtedness in the American GDP of almost 115% (Bodislav, Belingher, Marinescu, 2011).

Another delicate problem was observed during the Clinton Administration: Main Street (“the real producers”) is dependent of Wall Street (“the synthetic producers”; the street where we find the New York Stock Exchange, the FED and the Security Exchange Commission). This symbiotic relation is characterized by the lock down created through the manifestation of interest groups, these were under covered in the year 2008, through the battle for economic power financed by the state for private benefits. **“The economic common sense”** led to generating some rhetorical questions from the dark' side, the bankers, like why unlimited funds were not obtained or why is it called “bailout” and not an “investment program” (Stiglitz, 2010). The situation was one of economic blackmail on Main Street by Wall Street, but overall it looks like a psychological blackmail, some war tactics underline the idea of building fear to dominate and manipulate the adversary. President Obama gave up instantly to psychological blackmail installed by Wall Street. The negotiations for the takeover of stakes in banks led to some offered share prices above the market level, fact that led to another hit for the tax payer (money that were intended to recapitalize were taken by the bankers as bonuses). The political games on the Troubled Assets Release Program led to offering as leverage of some control levers through the obligation for transparency of commercial and investment banking politics and to lower the complexity of used instruments. Although to the private sector was demanded to lower the complexity of instruments and greater transparency, these demands didn't want to be applied also in the public-financial-banking environment.

#### 5.1.1. The global relation between the U.S.A. and China

Our description of the relation between the US (the world's largest economy) and China (2nd largest economy) can be compared as a relation between husband and wife (Ferguson, 2011, Bodislav, 2011b). The husband is the one that saves money (China has a savings margin of 0,6 – 0,7) and is the one at whom the wife appeals to (USA has a savings margin of 0,2 – 0,3, but because the

large portion of FDI, the consumption margin cumulated with the investment margin sum-up to more than 100%, the difference being supported by China), USA's spending are bigger than what it can afford from its own budget, the funds obtained through personal borrowing (external loans on short and medium term – these being covered through temporary banking relations) to whom the husband's (China) funds are added.

## 5.2. The account for the global flow

The current account includes the trade balance and the clearing between external and internal payments made by residents and non-residents, to which is added the amount of money sent by foreigners into the country (for example: the Philippine babysitters are found around the globe or like Romanian workers that work in real estate – constructions and agriculture that send money to their country of origin).

In the year 2010 China's current account' surplus reached the record amount of 1800 billion dollars despite Japan which reached a surplus of approx. 590 billion dollars, this difference being more than sufficient for the Popular Republic of China to top as the 2nd world's largest economy.

The current account can be expressed as the difference between savings and investment. Spending is fragmented in two segments: consumption and the component that remains for savings. If the difference between savings and investment is positive, this amount is going to be exported.

When a deficit of current account exists, it is financed through debt securities, that are bought by other countries, they are investing in the host's country' economy, but they could have invested in real estate or in plants development in another country (Volkswagen in Mexico, BMW in USA and China, Mercedes in USA, Peugeot in Romania, Ford in Romania, etc.), for real estate we have a negative development for northern Europe's countries, especially Island which went bankrupt and, now, under fiscal administration of the Russian Federation by buying-out their tax deficit in the year 2010 and starting from the fiscal year 2011 all budget incomes are transferred to the Russian's Federation current account.

## 6. Conclusions

Constantin Popescu and Alexandru Tasnadi state that:” Now, in the beginning of the century, work organizations by their global length and strengths, affect economic, political and social forces, influencing culture and traditions, being able to produce „socio-quakes” that, if not being held under control, transforms us from a world without frontiers in a world without hope.” (Popescu and Tasnadi, 2009). We are living in a world having the characteristics of classic, mechanical science; a cold, calculated, tough world, governed by narrower "laws", where people are considered objects in a universe of objects. The human being is neglected and does not occupy the central place of rulers be they people or countries. We leave in a world where we feel alone and afraid.

The world we live in is according to Safran (2005) a world characterised by an anti-scientifically religion and an anti-religious science, two entities that came in conflict in crises periods.

According to Popescu and Tasnadi (2009) today the relationship between science and religion is characterised by a secular rift, rift that explains why scientific discoveries have been used in favour but also against human beings. The same authors appreciate that for our century this rift equals dramatic consequences on our evolution as humanity. Humanity needs according to Popescu and Tasnadi, (2009) „a creative and alive unity in diversity, between the spiritual. social, religious, **economical** and political **functions** of human communities, [...] in order to evolve towards a sound communitarian organism”.

And in order to have the complete picture we must quote Capra (2004) that considers the present crisis as an interior crisis and thus a psychological and spiritual one that generated an exterior crisis so severe that it endangers our existence as a species. The human spirit must be the centre of our preoccupations and interest.

Einstein also drew people's attention on the deficits of faith and knowledge and the potential danger they are.

Pope John Paul II militated for the harmony between science and faith, as independent but organic sides of the human spirit.

Thus, economy, as well as people, communities, organizations can be healed only if they change their way of thinking, as a practical solution of eliminating interior causes that lead to sufferance. We should cease to look the causes for what is happening to us, outside us, but try to look for them inside. We must enlarge our spiritual and mental horizons.

Trans-disciplinary nature studies of a holistic nature highlight the fact that the level and meaning of competitiveness in the private and public business world have their source in the harmony that is created from three factors: Love, Authentic Knowledge and the Belief in the Certainty of Hope.

Still: "... we are pawns in a game played by some strength that we do not manage to understand at all. Usually, we believe that we are the ones at the helm and that we have the last word to say on decisions that we take and on the direction our lives are heading; but unfortunately, this perception has more contact with our desires-with the way we want to see ourselves-than with reality. ... Once we understood where it is possible to take wrong decisions, we could try to pay attention, to make the effort to think otherwise at these decisions or to call to technology to overcome the inherent drawbacks. Here also business leaders, and those of political affairs may review their way of thinking and seeing how they would be able to conceive products and policies." (Ariely, 2010).

**Acknowledgments:** This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/107/1.5/S/77213 "Ph.D. for a career in interdisciplinary economic research at the European standards".

## 7. Bibliography

- Appadurai, A. (1996) *Modernity at large: Cuktural, Dimensions of Globalization*. Minnesota: University of Minnesota Press.
- Appadurai, A. (2001) *Grassroots Globalization and the Research Imagination*. London: Duke University Press.
- Appadurai, A. (2006) *Fear of Small Numbers*. London: Duke University Press.
- Ariely, D. (2010) *Irrational in mod previzibil-Fortele ascunse care ne influenteaza deciziile*. Bucharest: Publica Publishing.
- Bodislav, A. (2011a) Globalization versus the Global Economy: an Economic Conceptualization. *Conference Proceedings of The 17th International Conference The Knowledge Based Organization (KBO 2011)*, „Nicolae Balcescu” Land Forces Academy, 24-26 November 2011, Sibiu, Romania.
- Bodislav, A. (2011b) The Crisis of the Economic Evolution, *Revista Economica*, no. 2/2011, Sibiu, Romania, p. 67-73.
- Bodislav, A., Belingher D. and Marinescu C. (2011) Profit versus Social Welfare, Continuity versus Change. The Vision of Social Governance, In *The 3rd Conference ECOTREND 2011*, 25-26 November 2011, Targu-Jiu, Romania.
- Brezezinski, Z. (1997) *The Grand Chessboard, American Primacy and Its - Geostrategic Imperatives*. New-York: Basic Books, a Member of Perseus Books Group.
- Capra, F. (2004) *Momentul adevarului, stiinta, societate, si noua cultura*. Bucharest: Tehnica Publishing
- Dickey C.; Nadeau B. (2011) The Trouble with Technocrats, *Newsweek*, vol. CLVIII, no. 22, New York, p. 34-37.
- Engdahl, W. (2007) *Seeds of Destruction. The Hidden Agenda of Genetic Manipulation, Global Research*. Germany: Center for Research on Globalization.
- Engdahl, W. (2011) *A Century of War, Anglo-American Oil Politics and the New World Order*. New Revised Edition, Germany: edition.engdahl.
- Engdahl, W. (2009) *Gods of Money, Wall Street and the Death of the American Century*. Germany: edition.engdahl.
- Ferguson, N. (2011) *Civilizatia. Vestul si Restul*. Iasi: Polirom Publishing.
- Fligstein, N., (1999) *Is Globalization the Cause of the Crises of Welfare States*. Institute for Research on Labor and Employment, California: University of California/Berkeley.
- Jones, A. (2011) *Globalizarea. Teoreticieni Fundamentali*. Cluj Napoca: CA Publishing.
- Mason, P. (2011) Twenty Reason why it's kicking off everywhere, *BBC News Blogpost*, London: BBC News.
- Morgenthau, H. (2007) *Politica între națiuni. Lupta pentru putere și lupta pentru pace*. Iasi: Polirom Publishing.

- Popescu C.; Tasnadi A. (2009) *Respiritualizarea, invata sa fii om*. Bucharest: ASE Publishing.
- Safran, A. (2005) *Etica evreiasca si modernitatea*. Iudaica Collection, Bucharest: Hasefer Publishing.
- Stiglitz, J. (2010) *Freefall: America, Free Markets and the Sinking in the World Economy*. New York: W.W.Norton & Company Publishing.

# THE CONTRIBUTION OF ECOCLUSTERS ON THE REGIONAL DEVELOPMENT: AN AUSTRIAN CASE STUDY

**CHINIE (PĂNĂZAN) Alexandra-Cătălina**

*PhD student, The Bucharest University of Economic Studies Business Administration Doctoral School Dept of BCSMQ, Bucharest, Romania, alexandra.chinie@gmail.com*

**CÎNTEA Codruta**

*PhD student, The Bucharest University of Economic Studies Business Administration Doctoral School Dept of BCSMQ, Bucharest, Romania, codruta.cintea@gmail.com*

**Abstract:** *The purpose of this research is to study the connection between regional development and the presence of eco-clusters. One aim is to prove that these contribute to the economic growth of the region by creating a healthy economic environment for private companies and research facilities for the development of new green technologies. The methods used are a survey and the analysis of a data assembly made by statistic research on the six existing eco-clusters in Austria. We expect to find a direct relationship between the eco-clusters and the social, economical and environmental development of the region.*

**Key words:** ecocluster, regional development, environment, green technology, sustainability

**JEL classification:** Q01, Q56, Q58

## 1. Introduction

Given the past experience, governments and organizations have acknowledged the impact that clusters have on economic performance. Consequently, these were introduced as important actors in the regional development policies.

This paper deals with the contribution of ecoclusters on a regional level with focus on Austria. The main purpose is to prove that there is a direct relation between the regional development and the presence of ecoclusters in those regions. First, we evaluate the effects that green clusters have on regional development indicators. The study bases itself on past studies about the support of regional development, granted by the presence of regional agglomeration of companies that activate within a cluster. Second, we review the European and local policies meant to foster the foundation and development of such business structures, in order to achieve regional development. There are numerous case studies that present the positive effect of industrial clusters on the economic and social indicators in a region. However, there is a gap in literature on the effect that clusters have on the ecological vector. Therefore, our third aim is to analyse the positive effect that a cluster can have on the ecological vector, taking into account the holistic perspective of the sustainable growth targeted by public and private actors. Naturally, ecoclusters – also referred in literature as green clusters or cleantech clusters– would have the most impact on the ecological vector of regional development, and consequently is the main topic of our case study.

## 2. Regional development and clusters

Regional development is a holistic concept that refers to sustainable growth in various domains of interest, such as economic status of the region, social dimension of the region, culture, politics and administration in the region and environment. Regional development is meant to reduce the differences between developed and less developed regions within a state or community. A related international current is evident in the broadening of notions of development regionally and locally beyond its longstanding economic and quantitative focus to encompass sustainable social, cultural, political and environmental dimensions and more qualitative, even subjective, concerns about the quality of life (Pike, 2011).

The fundamental principal around which the process of regional development evolves is the concept of sustainability. The Brundland Commission defined sustainable development as the “ability to make development sustainable—to ensure that [development] meets the needs of the present without compromising the ability of future generations to meet their own needs”. Thus, each growth of a certain dimension should bring long-term advantages and not compromise the future of next generations.

The holistic perspective of regional development is strongly tied to the “3 pillars of sustainability”, concept which states that in order to reach sustainable development, all 3 pillars that hold up its “roof” should be equally considered: economy, society and environment.

The need for a regional development policy in the European Union came with the integration process, especially when including poorer states. The Werner Report in 1971 backed the movement towards economic and monetary union by 1980, and observed that continuous regional disparities within the EU would weaken the achievement of the European Monetary Union. The EU had managed a healthy regional development policy since 1975, relocating funds from the well heeled member states to poorer nations and regions through the EU’s structural funds (Malais and Haegeman, 2009).

Regional development policies have been formerly structured around two axes: infrastructural endowment and top-down industrialization process. These policies, however, did not manage to have a long-term successful effect on regional development and employment. Traditional top-down policies aimed at achieving economic development normally consisted of supply-led policies, focused either on infrastructure provision or on the attraction of industries and foreign direct investment (Pike 2011). A new policy approach had to be considered, and a more holistic perspective had to be taken into account, in order to improve regional competitiveness, and create sustainable growth. The new regional development paradigm is innovation oriented. This strategy starting from bottom-up is based on local activities of different nature. It depends on private actors and cannot be planned but supported by the regional decision-makers (Thierstein and Walser, 1999).

The economic structure that best defends the interests of businesses and fosters innovation, economic growth and competitiveness is represented by clusters. The term became famous with Porter’s “The Competitive Advantage of Nations” article in 1990. He later stated that “A cluster is a geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities”(Porter, 1998a). Jacobs and De Long (1996) expand Porter’s classification and presents a more in-depth definition of industry cluster, taking into consideration the geographic and spatial clustering of economic activity, horizontal and vertical relationships between industry sectors, presence of a central actor, firms’ cooperation and the role of social interaction.

The growth of the largest clusters has been driven by market demand and entrepreneurial spirit. Some began as large companies that originally located in less populated areas to take advantage of low wages and surplus labor markets and that later disintegrated into smaller firms (Rosenfeld, 2002).

The changing economic conditions suggest that regional economic performance (e.g., the quality of jobs, generation of out-of-region exports, wealth and income generation) is based on a “portfolio” of industries whose competitive position is reinforced by a network of customers and suppliers (Felbinger, 2001). Given the characteristics of clusters defined by authors such as Porter, Krugman or Schumpeter, to name a few, authors have further studied the impact of clusters, mainly industrial, on regional development: McCann and Arita (Industrial clusters and regional development: a transaction-costs perspective on the semiconductor industry, 2004); Asheim, Cooke and von Taylor Francis (Clusters and Regional Development: Critical Reflections and Explorations, 2006); Adams and Wang (Industrial clusters and regional economic development in China: the case of “green” food, 2009) or Isbasoiu (Industrial Clusters and Regional Development. The Case of Timisoara and Montebelluna, 2006).

In order to support innovation and economic growth, the European Commission has recently developed cluster policies, acknowledging clusters as a crucial trigger for regional development. Typically, policies in support of cluster development are not explicitly called “cluster policies” but are part of broader strategies aiming at regional and business development. (EU 2008, as cited in Carlsson and Pikard 2011) The EC created programs aimed at supporting R&D and started new initiatives to help governments and regional institutions to create and develop regional clusters, such as PRO INNO Europe and Europe INNOVA.

Cluster policies can be defined as specific governmental efforts to support clusters (European Communities, 2008). The requirement for specific cluster policies in the EU was defined after the European Regional Development Fund Regulation for 2007-2013 included the support of business networks, public-private partnerships and clusters and the Community Strategy Guidelines on Cohesion recommended the support of clusters for the improvement of knowledge and innovation for growth. According to Europe INNOVA Commission Staff, cluster policies are a vital element of

building strong innovation Systems and reflect where a country or region wishes to position itself in global competition with a mid-term perspective.

In October 2008, the European Commission adopted a Decision on setting up a European Cluster Policy Group with the aim to explore how to better assist Member States in supporting the emergence of more world-class clusters in the EU (ec.europa.eu, 2009). The objectives of the European Cluster Policy Group are: to make recommendations on how to better design cluster policies in the Community; to assess international trends in cluster development; to identify future challenges for cluster policies in response to globalization; to explore tools for the removal of existing barriers to transnational cluster cooperation; to analyse complementarities between the main Community level policies and the financial instruments that support clusters.

Agencies for Cluster Policy Implementation have been established in many states. Germany has 11 such agencies. These engage in programs for the development and implementation of clusters and the achievement of regional development. The main actions that these agencies take in order to implement the regional development strategy is to engage actors, collective services and larger-scale collaborative R&D (OECD 2007 Policy Brief).

Gebhard Kirchgässner came to the following conclusion: competitive markets facilitate too little attraction in regard to ecology and social sustainability (Bruno and Kirchgässner, 2002). The attractiveness to engage in an industry that is also ecologically sustainable should be a new concern for regional development policies. Regional policy must favor the creation of a framework for interaction: a framework in which companies, organizations and public agencies are able to explore joint solutions to problems shared in common, a framework in which, once dialogue has been established, attitudes that are more receptive to the interchange of information and interactive learning are generated (Diez, 2001).

The future success of regional development depends on the support and value share within its related business and should base itself also on current ecological trends. Cluster policies in order to achieve regional development, as well as the analysis of clusters on regional development have been generic, or based on industrial clusters. Industrial clusters have proved to be very beneficial on the economic and social performance of regions, however, in order to achieve sustainability, one has to grant equal importance to the ecological vector of regional development. The type of clusters that would have an equally important effect on the economy, as well as the environment, is the newer “green cluster”, also referred to as ecocluster or cleantech cluster (network of companies that use clean technologies).

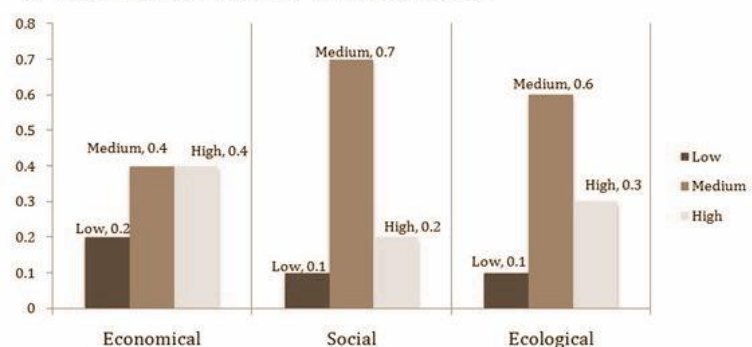
#### 4. Ecoclusters

Companies seeking a green growth strategy, innovation and competitive advantage on the long run will be interested in forming green clusters: local networks based on knowledge and value share, active in interconnected businesses, with a sustainable ecological strategy. (Tantau, 2012). The importance of green growth can also be found in “The impact of renewable energy policy on economic growth and employment in the European Union,” a report recently published by the European Commission that concludes that employment and the creation of added value will be achieved in the field of renewable energy on a different level through the installation and implementation of new policies than what was achieved in previous industries (Yoon-Jun, 2010).

Although still an emerging concept, the term *Ecocluster* is used for some time now, to define all business clusters acting in an ecological field. Another term associated with this context is the *Cleantech cluster*. Cleantech has a „new technology and related business models that offer competitive returns for investors and customers while providing solutions to global challenges” (cleantech.com, 2011).

According to a preliminary result of a research performed but not yet published by Tantau and Chinie (2012), 73% of the worldwide clusters state that regional development is one of their primary objectives. When asked about their impact on regional development, 40% of the green clusters’ representatives consider that the highest impact of the

**Figure 1: Green clusters’ impact on regional development, as valued by the clusters’ representatives**



Source: Tanțău, 2012

network was on economy and ecology.

Only 10% of the green clusters' representatives considered that their impact on the ecological and social pillars of regional development was low. However, a higher percentage of 20 considered that the economic development in the region, after the green cluster was created, was low. This could be explained by the very high costs that clean technologies trigger and the longer period required in some domains of activity, in order to cover the investment.

From an economical point of view, green clusters can support companies to align to the new environmental conditions, beside offering the classic economical advantages of clusters, such as increasing production and efficiency, offering new jobs, etc. One of the most important characteristics of green clusters lies in its strong dependence to innovation. Cooperation in Research and Development raises the efficiency of the R&D programs and leads to the improvement of technology, which ultimately leads to the technological endowment of the region where the cluster is active. Unlike industrial clusters, green clusters do not depend on classic resources, use scarce resources and can be developed in poorer regions.

From a social point of view, green clusters can majorly improve the poverty reduction, as they can be formed in very weak developed regions, where no conventional resources are available. If one would choose to invest in a wind energy park on the Transylvanian Plateau or in Dobrogea, the investment in the latter region would have a far bigger impact on the social dimension as it would have in the former. While the areas in which one could invest in Transylvania are many (IT, Superior education and research, Tourism, Agriculture, Automotive, etc.), the geographical conditions of Dobrogea do not offer many alternatives, and narrow the job fields.

Environmental oriented business networks lead to changing the mentality and culture of the community where they are active. A study conducted by Mintel International Group in 1991 identified the evolution phases of the consumers' mentality, as a result of the environmental interest:

Green clusters may also help maintain agricultural tradition in rural communities, by investing, supporting and developing measures of diversity in rural economy: it is the case of Croatia, which is mostly a rural country, where the production of bio products and the use of eco-friendly resources is fostered by the United Nations Development Program (UNDP) and Croatian institutes.

A new cultural impact of the green construction industry is created by preserving historical buildings, while using environment-friendly materials and restoring the buildings with energy saving insulation (the case of green construction in Portsmouth, USA). Aside from saving costs by reusing old buildings and reducing the energy consumption, this kind of constructions help preserve the cultural identity of a region like Portsmouth.

The environmental dimension is the true winner when a green cluster is formed. Environmental business contributes to reduce the negative effects over the environment by focusing on activities such as:

environmental purification, pollution control, utilization of alternative or organic resources, recycling resources, production of green products, environmental services,; developing and improving green technology.

The analysis of the impact of green clusters should help reshape the public policies for regional development. Taking into consideration the impact of green clusters on the sustainable regional growth, policies should support the creation and evolution of such business structures in poorer regions.

#### **4. Methodology**

In order to achieve our purpose, we chose to use as a research method, namely the case study. Also, we chose to focus our case study on Austria because Austria is a relative small country divided in nine regions. In order to gather data for this case study we used two instruments: internet (online statistical databases) and a questionnaire. We accessed data from the National Institute of Statistics of Austria (statistik.at) and two online platforms dedicated to clusters: clusterobservatory.eu and ClusterCollaboration.eu. With the help of the two online platforms, we identified the ecoclusters from Austria filtering the information on the following criteria: environment/green technologies, energy and packaging. We identified 6 ecoclusters in 5 different regions.

We conceived a questionnaire that we e-mailed to the management of the identified clusters (the e-mail addresses were taken from the above mentioned online databases). This questionnaire was constructed using the 'cluster fact sheet' model which was an instrument used for the meeting of the European Energy and Environmental Technology Clusters in Brussels, on the 10th of February 2009



(eco.at, 2012). Our cluster fact sheet was adapted to our case study in order to obtain consistent results.

Our cluster questionnaire comprises the following fields: geographic extension of the cluster, the year of foundation, the number of employees at the moment of foundation, funding sources, services offered, the number of member companies, membership fee, type of members, main areas of activity, turnover, current number of employees in ‘green areas’ (for more details, see Appendix One).

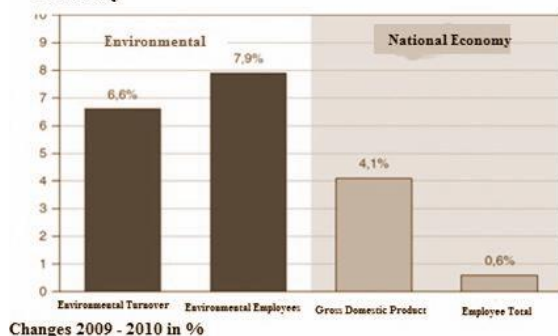
The geographic extension of the cluster, the population of the region, the number of employees at the foundation and the current number of employees are important elements in the analysis in order to see how these clusters evolved in time. Funding sources and the type of members when analyzed together tell us not only to what extent the Public Administration is involved in the process, but also to what extent the European policies are implemented at cluster level. The type of members tells us in what proportion the public and the private sector contribute to the cluster. The number of members, member fee and the type of companies measure the growth and the influence in the region of the cluster. The turnover and the number of employees activating in ‘green areas’ when compared among cluster will show us the efficiency of cluster’s activity.

## 5. Case study: the contribution of ecoclusters to the austrian regional development

Member of the European Union since 1995, Austria is a leader when it comes to developing ecological technologies and efficient use of renewable resources. At the time being there are 6 clusters in Austria, with Energy as their main field of activity: we refer to “Oekoenergie-Cluster” in the Upper Austria region and “Cluster Renewable Energies Tyrol” in the Tyrol region. There are 3 clusters in Austria with Environment/Green

Technologies as their main domain of activity: “Environment Technologie Cluster, Network Energy Efficiency” (Upper Austria), “Eco World Styria” (Steiermark) and “Austrian Water” (Burgenland). As for main field of activity Packaging, there is “Verpackungsland Vorarlberg” (Vorarlberg) cluster (clustercollaboration.eu, 2012).

**Figure 3: Development of Environmental Economics 2009 - 2010 compared to the overall economy**



Source: statistik.at, 2012

the development of these regional clusters. According to the data of “Statistik Austria”, Austria’s GDP grew between 2007 and 2009 from 274,818 Mio € to 301,308 Mio €. Making an analysis of the regional GDP using Table 2, we observe that from 2007 to 2008, all regions registered a growth of GDP per capita, with a decline in 2009, when the

**Figure 2: Ecoclusters in Austria**



Source: Made by authors

According to the March 2012 press conference of the Austrian Statistics Institute, the environmental economy had grown with 6.6%, a percentage higher than the 4.1% growth of Austria’s GDP in nominal value. Also, the employment rate in the environmental field grew with 7.9% compared to the country’s overall employment rate which registered only 0.6%. Moreover, the contribution of activities in the renewable resources and environmental protection field to Austria’s GDP grew from 2008 to 2010 from 11.3% to 11.8% (statistik.at, 2012).

It is interesting to make an analysis between regions and observe to what extent the macroeconomical changes have been influenced by

**Table 1: Austrian GDP 2007 - 2009**

GDP Austria	2007	2008	2009
GDP Mio. €	274818	286197	301308
GDP/capita	32860	34120	35790
Real Growth rate (%)	-3.80%	2.30%	3.10%

Source: statistik.at, 2012

crisis started. Still we can notice that in the Burgenland, Steiermark, Oberoestereich, Tirol and Vorarlberg regions, the GDP did not decrease under its value in 2007, whereas in the other regions where the enterprises are not organised into ecoclusters, their GDP dropped below its value in 2007. Therefore by this correlation we show that the presence of ecoclusters diminished the effects of the economical crisis. Also, this may show that the presence of eco-clusters leads to an economical

**Table 2: Austrian GDP per Regions**

Regional GDP Austria (€/capita)	2007	2008	2009
Burgenland	21900	22400	22000
Niederoesterreich	27100	28000	27000
Wien	42800	43900	42600
Kaernten	28100	28800	27400
Steiermark	29000	29600	28500
Oberoesterreich	32500	33900	32800
Salzburg	38200	38800	37500
Tirol	34600	35100	34600
Vorarlberg	34700	35900	34700

Source: statistik.at, 2012

region. This region has a population of 1.2 mil out of which 32 000 work in the cluster's member companies which means that a percentage of 2.7% of the region's population is hired in this cluster.

Research is also privileged in this cluster, leading to a research rate of 4.3% over the target imposed by the EU-Lisbon treaty of 3% for the year 2010. This is due to the fact that there are 5 universities with research centers in the field of energy and environmental technologies in the Steiermark region. The Europe 2020 targets were also exceeded: the level of regenerative energy at the final consumer of 25% and the level of recycling of reusable materials of 70% (eco.at, 2012).

The Styria region developed as a result of the expansion of "The Green Tech Valley" (EWS), in terms of number of member companies, number of employees, development of technology etc.. When it comes to the quality of life, this region is one of the top regions in Europe: 18 top companies in the energy and environmental technology; 3 billion in annual revenue Green Tech; 18% revenue growth in real terms, faster than the global market; 12% employment growth in the renewable energy and environmental research with a rate of 4.3%; 4 ECO-Innovation Centers of Excellence; 4 universities with internationally renowned universities; Increased 6.fach expert analysis based on worldwide patents (eco.at, 2012).

In the Upper Austria region two clusters developed around the city of Linz beginning with the year 2000. The region's plan was to ensure 100% out of the electricity demand and space heat from renewable energy source pan in the year 2030. There are 1.4 Mil. People who live in Upper Austria, and through its industrialization, it can ensure 25% of the national export. Still in the highly industrialized regions the need of alternative and ecological solutions is substantially higher.

Oekoenergie Cluster, the first cluster that was founded in the region, offers services in the following sectors: Solar energy (solar thermal, photovoltaics); Biomass and biogas; Wind energy; Geothermal energy and heat pumps; Small hydro power; Low energy and passive buildings; Energy certification of buildings; Energy performance contracting; Energy efficient lighting; Energy advice; Energy efficient building services and process technologies. At the time being the cluster ensures 34% of the energy demand (15% biomass, 15% hydropower, 4% solar and other sources of renewable energy) (oec-en.at, 2012).

If when the cluster was founded 1620 people were working there, until 2011 their number grew to 7300, with a growth rate of 350%. Now the cluster benefits of 160 member companies that were joined in November 2011 by other 40 companies from the region of South Bohemia. The turnover of this cluster grew from 230 Mio EUR in 2000 to 1800 Mio EUR in 2011 (oec-en.at, 2012).

Comparing the answers given by the manager Christian Köberl (Eco World Styria) and manager Karin Krondorfer (Ökoenergie Cluster), we notice that in the cluster Eco World Styria the main areas of activity are more diversified, whereas the Ökoenergie Cluster is specialized on Renewable Energies and Energy Efficiency. This difference is reflected not only at the turnover level of 2011, but also in the number of employees. Eco Worlds Styria (EWS) in 2011 had a turnover of 7

growth of the region.

The *Eco World Syria* cluster, founded in 1998, became a point of reference in the environment/green technologies field over the years. With more than 180 member companies in 2012, out of which 70% are companies specialized in the field, 25% are research institutions and 5% are administration institutions, this cluster managed to diversify its activity fields. The ecological solutions offered led to a turnover of 7 bn € in 2011, according to the manager's Christian Köberl (2012) declarations. The cluster was situated in the surrounding area of the city of Graz, in the Steiermark

bn €, having a total number of 32,000 employees, whereas Ökoenergie Cluster (ÖkC) had a turnover of 1.8 bn € with only 7,400 employees. Out of this comparison, we notice that ÖkoCluster achieved one third of Eco World Styria's turnover with approximately one quarter of its employees. When comparing these, it must be mentioned that both clusters have approximately the same number of member companies, but only EWS requires a membership fee.

Regarding the funding source, 60% of the funding for EWS comes from the Public Sector, which represents only 5% of member companies. In regards to ÖkC, the funding sources was not filled in when we received our questionnaire, but from the field 'types of members' since Public Sector is not a part of this cluster, we can deduce that Public Sector does not finance this cluster. The involvement of the Public Sector in the cluster is important because of its political framework for clusters that can be more easily extrapolated and implemented on a regional level. In this way, the clusters that have Public Institutions as members have a competitive advantage.

## 6. Conclusion

The need for regional development strategies has appeared along with the need to diminish the economic and social disparities between regions belonging to a state or a union. In order to achieve regional development, public authorities have worked on policies to support sustainable growth in the region. After acknowledging the positive impact that clusters have on economic and social indicators in their region of impact, they also created policies meant to support the development of clusters. The types of clusters that influence the economic and social aspects, as well as the environment, are the ecoclusters.

Analyzing the two green clusters, Eco World Styria (EWS) and Ökoenergie Cluster (ÖkC), we noticed that the regions in which these developed were less affected by the economical crisis than the other regions in which the green clusters lack. Under the 'umbrella' of ecoclusters, a large number of SMEs were able to develop because they benefited of know-how, financing, market access, etc. Ecoclusters encourage and facilitate R&D leading to technological development and competitive advantage. Also, green clusters contributed to the achievement of the environmental targets imposed by EU, and even to the exceeding of those targets.

On a social level, ecoclusters create jobs reducing the unemployment rate. Through the social responsibility programs not only that the employees benefit of continuous training, but also the people become more aware of the influence they have on the environment. Because this field is in continuous development and transformation, the people that are involved in these processes witness and benefit from these ecological revelations. Consequently this may trigger a shift on a cultural level, too. Since this cultural level was not analyzed in this paper, this is something that remains to be further researched.

Reflecting back on the analysis and the methodology used, we did not foresee a low response rate from the management staff. We expected to gather all data because we obtained updated information about the contacts and also because we personalized the invitation and the fact sheet. This shortcoming forced us to analyze a restrained number of clusters.

## Acknowledgement

This work was co-financed from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013; project number POSDRU/107/1.5/S/77213 „Ph.D. for a career in interdisciplinary economic research at the European standards”

## 7. References

- Asheim, B., Isaksen, A. (1997) "Location, agglomeration and innovation: towards regional innovation systems in Norway?" *European Planning Studies*, 5(3).
- ClusterCollaboration.eu. (2012) *Cluster Organisations – Map*. Available at <http://www.clustercollaboration.eu/web/guest/map>.
- Clusterobservatory.eu (2012) *Cluster Mapping*. Available at <http://www.clusterobservatory.eu/index.html>.
- Cooke, P. (2001) "Regional Innovation Systems, Clusters, and the Knowledge Economy", Oxford University Press, *Industrial and Corporate Change*, 10(4), p. 945-974.
- DG Enterprise and Industry Report (2007), *Innovation Clusters in Europe: A statistical analysis and overview of current policy support*, European Commission.

- Doloreux, D. and Parto, S. (2004) *Regional Innovation Systems: A Critical Review*. Available at [www.ulb.ac.be/soco/asrdlf/documents/RIS\\_Doloreux\\_Partto.pdf](http://www.ulb.ac.be/soco/asrdlf/documents/RIS_Doloreux_Partto.pdf).
- Eco World Styria (2012) *Leistungen*. Available at <http://www.eco.at/>.
- Europe INNOVA/PRO INNO Europe (2008), *The concept of clusters and cluster policies and their role for competitiveness and innovation: main statistical results and lessons learned*, Commission Staff Working Document SEC 2637, European Commission.
- Frey, B. and Kirchgässner, G. (2002) *Demokratische Wirtschaftspolitik*, Verlag Vahlen, 3<sup>rd</sup> edition, Munchen.
- Gordon, I.R. and McCann, P. (2005) "Clusters, Innovation and Regional Development: An Analysis of Current Theories and Evidence", in Karlsson, C., B. Johansson and R. Stough (eds.), *Industrial Clusters and Inter-Firm Networks*, Edward Elgar, Cheltenham.
- Isbasoiu, G. (2006) *Industrial Clusters and Regional Development. The Case of Timisoara and Montebelluna*, Munich Personal RePEc Archive., retrieved on the 15th of June from <http://mpira.ub.uni-muenchen.de/5037/>.
- Karlsson, L. and Picard, R.G. (2011) *Media Clusters: Spatial Agglomeration and Content Capabilities*, Edward Elgar Publishing.
- Malais, J. and Haegeman, H. (2009) *European Union Regional Policy*, School of Doctoral Studies (European Union) Journal, No. 1, July.
- OECD (2010) *The Regional Development Policies in OECD Countries*.
- Okoenergie Cluster (2012) *10 Jahre OEC*. Available at [http://www.oec.at/fileadmin/redakteure/ESV/Info\\_und\\_Service/Publikationen/10\\_Jahre\\_OEC.pdf](http://www.oec.at/fileadmin/redakteure/ESV/Info_und_Service/Publikationen/10_Jahre_OEC.pdf)
- Pike, A.; Rodríguez-Pose, A.; and Tomaney, J. (2011) "*Handbook of Local and Regional Development*", Routledge Handbooks.
- Porter, M. (1998a) *Clusters and the New Economics of Competition*, Harvard Business Review, Boston, 76(6), p. 77-90.
- Porter, M. (1998b) "Clusters and Competition: New Agendas for Companies, Governments, and Institutions", Harvard Business Review, from *On Competition*, published by Harvard Business School Press, 1998.
- Rosenfeld, S. (2002), *Creating Smart Systems. A guide to cluster strategies in less favored regions*, European Union-Regional Innovation Strategies, retrieved from [ec.europa.eu/regional\\_policy/innovation/pdf/guide\\_rosenfeld\\_final.pdf](http://ec.europa.eu/regional_policy/innovation/pdf/guide_rosenfeld_final.pdf).
- Statistik.at. (2012) *Umweltorientierte Produktion und Dienstleistung*. Available at [http://www.statistik.at/web\\_de/dynamic/statistiken/energie\\_und\\_umwelt/umwelt/umweltorientierteproduktion\\_und\\_dienstleistung/062898](http://www.statistik.at/web_de/dynamic/statistiken/energie_und_umwelt/umwelt/umweltorientierteproduktion_und_dienstleistung/062898).
- Sölvell, O., Lindqvist, G. and Ketels C. (2003) *The Cluster Initiative Greenbook*, Bromma tryck AB, Stockholm.
- Tantau, A.; Chinie, A.C. (2012) *Green clusters as a new business model for Central and Eastern Europe*, Working Paper, to be published in the International Multidisciplinary Scientific GeoConference & EXPO Proceedings.
- Yoon-Jun, L. (2010) „Green cluster to vitalize regional economy”, *The Korea Herald*. Available at <http://www.koreaherald.com/business/Detail.jsp?newsMLId=20100930000451>.
- Thierstein, A. and Walser, M. (1999) Sustainable Regional Development: Interplay of Top-Down and Bottom-Up Approaches", Conference Paper, St. Gallen.
- Vaz, T.N. and Nijkamp, P. (2009) „Knowledge and innovation: The strings between global and local dimensions of sustainable growth", *Entrepreneurship & Regional Development*, 21(4), p. 441 — 455.

**APPENDIX ONE:  
CENTRALIZED ANSWERS TO THE QUESTIONNAIRE**

	<b>Eco World Styria The GreenTech Valey</b>	<b>Environment Technology Cluster, Network Energy Efficeny</b>	<b>Okoenergie Cluster</b>	<b>Austrian Water</b>	<b>Cluster Renewable Energies Tyrol</b>
Country	Austria	Austria	Austria	Austria	Austria
Geographic Extension of Cluster	Styria	Upper Austria	Upper Austria	Burgenland	Insbruck
Population in region (2011) PAX	1.2 Mil		1.4 Mil		
Year of Foundation of Cluster	1998		2000		1997
Number of Employees at Foundation (PAX)	3		1620		
<b>Funding Sources:</b>			no information		
Public Administration (%)	60%				
Companies (%)	30%				
Other (%)	10%				
<b>Services offered (Yes/No/Partly)</b>					
R&D Services	Partly		yes		
Access to Finance	Yes		partly		
Specialist Advice	Yes		yes		
Education and Training	Yes		yes		
Knowledge and Information Transfer	Yes		yes		
Market Analysis	Yes		yes		
Marketing Activities	Yes		yes		
Export Support	Yes		yes		
Access to incubation space	Partly		no		
Job/Partner exchange	Partly		no		
Other					
Number of Member Companies in 2011	180		160		
Membership fee (range from to)	750 € - 6.000 €		0 €		
<b>Type of members:</b>					
Specialised enterprises (%)	70%		95 %		
Research institution (%)	25%		5 %		
Administration (%)	5%				
Other (%)					
<b>Main Areas of activity: (Yes/No/Partly)</b>					
Conventional Energy (nuclear, fossil, etc.)	No		no		
Renewable Energies and Energy Efficiency	Yes		yes		
Sustainable Transport	Partly		no		
Construction (sustainable constr., materials)	Yes		partly		
Air and Noise (pollution control)	Yes		no		
Soil Remediation	Yes		no		
Waste (collection, recycling, ecodesign)	Yes		no		
Water (treatmant, waste water)	Yes		no		
Other					
Turnover: (Total of all Member Companies (2011) Mrd €	7. bn €		1.8 bn €		
Employees: Total in all Member Companies	32.000		no information		
Employees: in "Green" Areas (Ren. En., En. Effic., etc.)	32.000		7,300		

# THE ENVIRONMENTAL CONTINGENCIES OF KNOWLEDGE DISSEMINATION: THE CASE OF CONSULTANCIES IN INTERNATIONAL DEVELOPMENT

**CIUMARA Tudor**

*Scientific Researcher III Ph.D., Center for Financial and Monetary Research “Victor Slăvescu”, Romanian Academy, Bucharest, Romania, [tudor@ciumara.ro](mailto:tudor@ciumara.ro)*

**O'MAHONEY Joe**

*Lecturer in Organisation Studies, Cardiff University, Wales, United Kingdom. [joeomahoney@gmail.com](mailto:joeomahoney@gmail.com)*

**Abstract:** *This paper explores the impact of context on forms of knowledge dissemination using secondary data concerning the role of management consultants in international development. It identifies three forms of consultancy intervention (forced, invited, humanitarian) which differ considerably in the power of the client, the knowledge maturity of the consultancy, the frequency and complexity of the project. The combination of these factors, we argue, strongly influences the type of knowledge dissemination found in the different types of projects. It is hypothesised that knowledge transfer will be most common in 'forced projects', knowledge translation in 'invited projects' and knowledge evolution in 'humanitarian projects'.*

**Key words:** *Management consultants, consultancy, management knowledge, diffusion, capitalism.*

**JEL classification:** *E02, E65, F02, F35, F42, F59, P19*

## 1. Introduction

In recent years, there has been a growing interest in the role of management consultants as carriers, diffusers or translators of management knowledge and practices (Kitay and Wright, 2004; Micklethwait and Wooldridge, 2003). Management consultants have been shown to be key agents in the practical transfer of management ideas into companies (Mueller and Whittle, 2011), sectors (Stone, 2004), countries (Wright and Kwon, 2006), and even continents (McKenna, 2006) that were new to consultancy interventions. More generally, consultants have been associated with both the generation and dissemination of a wider discourse that helps set the agenda for change or transformation (Whittle et al. 2010).

However, within organisation studies, this research has two related limitations. The first is that the vast majority of these studies focus on the impact of management consultants on Western companies in Western countries (Wright and Kipping 2012). These are generally clients which have invited in consultants in order to improve efficiencies. This rather simple relationship lends itself well to micro-level studies where 'management knowledge' is negotiated and translated in interactions between consultants and their clients. A consequence of this, and the second limitation is the lack of political aspect to these studies. Management knowledge is frequently assumed to be politically neutral and the wider socio-political dynamics of capitalism are not called into question (for example, Heusinkveld and Benders, 2002; 2005; Huczynski, 1993; Suddaby and Greenwood, 2001; Werr and Stjernberg, 2003). Despite recent calls for organisation studies to engage with critiques of capitalism, especially at a global level (Prichard and Mir, 2010; Morgan et al., 2011) the role of consultants in diffusing management knowledge has remained strangely politically neutral. Most studies in this field 'normalise' the role of consultants in diffusing knowledge or fail to explore the wider political consequences of these activities.

This paper seeks to address these gaps by examining the role of management consultancies in disseminating neo-liberal ideas to developing countries through an examination of international development literature. This context is substantively different from traditional consulting interventions on several grounds. First, because the consultants are generally paid for, not by the client, but by various institutions involved in international development, such as the World Trade Organisation, the World Bank or the International Monetary Fund, who generally finance the work. Second, these interventions are often part of a wider macro-economic intervention by these institutions which is managed at a national level, for example, concerning the



privatisation of industry or deregulation of markets. Finally, the interventions are often imposed upon a country against its wishes after it has defaulted upon its debts or lost a war. We believe this different context highlights the political aspects of consultancy by placing it explicitly within a macro-economic, neo-liberal framework which questions the legitimacy and efficiency of (some) consulting interventions in developing nations.

To achieve this, we draw upon studies of international development and neo-liberal interventions to generate hypotheses for future exploration in three key areas. First, we seek to describe and categorise types of consultancy interventions in developing countries and match these to the types of knowledge transfer that might be taking place. This is useful because, there is currently discord concerning the what actually happens when management ideas are transferred. By matching types of transfer to the type of intervention, we provide an inclusive but analytically superior analysis of the impact of context upon knowledge. Second, we show the importance of both the maturity of consulting knowledge involved in a project and the relative power of the clients involved. We argue that these are the dominant (though not only) underlying processes which generate the forms of knowledge transfer which we describe. Finally, by achieving these two previous objectives, we seek to show that in some contexts, consultancies can perform a dangerous role of imposing Western neo-liberal ideas with little regard for the cultural sensitivities, local realities and national institutions that are so important for the institutionalization of management ideas.

## **2. Theorising the diffusion of management knowledge**

The dissemination of management ideas has been depicted as central to the processes of globalization and the international institutionalization of Western management ideas (Guillen, 2001; Strange, 1997; Sturdy, 2004). The role of management consultancies has been shown to be central to this dissemination process (Bessant and Rush, 1995; Morris, 2000; Micklethwait and Wooldridge, 2003). Theoretically, the diffusion of management, or other, ideas, raises the important question of what happens to management knowledge when it is diffused? Whilst answers to this question are hardly rare, they themselves, tend to be based upon waves of fashion, or at least the researcher's favourite theoretical perspective, rather than on a context-dependent typology of what happens in different circumstances. Below, we briefly outline the three main approaches to explaining what happens to management knowledge during the diffusion process and the types of consultancy depicted in these studies.

### **2.1 Knowledge transfer**

In many, especially earlier, accounts of knowledge transfer, knowledge is portrayed as remaining relatively coherent and intact during the transfer process. Such a view is often borrowed from studies of technical innovations where stability and change are easier to track (Abrahamson, 1996). This view often depicts management fashions as being generated through a series of 'waves' where ideas remain relatively stable but grow and decline in popularity throughout a fashion's lifecycle. The underlying assumption of stability in the content of the knowledge being transferred is manifested in the bibliometric methodologies by which such innovations are tracked (Harris and Purdy, 2000; Heady et al., 1997; Kieser, 1997). Here, the 'counting' of instances of innovations is based primarily upon the presence of a keyword in an article, book or academic paper, rather than appreciation of the variance of the innovation in the empirical setting.

The key question from this perspective is less what happens to the knowledge as it is transferred, because it is assumed to remain relatively stable, and more how is the transfer characterised. Thus, the seminal paper by Carson et al. (2000) states it studies the 'sixteen management fashions that emerged over the past five decades' with little appreciation of how these fashions were changed over the period. However, such a perspective is not necessarily 'wrong', despite frequent attacks by other theoretical positions. One might postulate that some types of knowledge that, in a stable environment might vary little as they are passed between consultants, clients, authors, readers, teachers or students. One example might be Porter's Five Forces which is still taught in many business schools in roughly the same way as it was over thirty years ago.

Where consultants are represented in this perspective, they are most commonly 'recognized as carriers of advanced knowledge' (Alvesson, 1993, p. 1004) - that is, they pick up the knowledge in one area (books, clients, MBAs, internal tools) and drop it in another area (usually the client). This might be seen as typical of those consulting firms that practice 'engineering' or 'codified' business models (Hansen et al.,

1999) which rely upon a standardised model or methodology that is a suitable basis for a high leverage company (i.e. one where junior workers can deliver a service due to a highly prescribed repertoire).

## 2.2 Knowledge translation

Translation has been used to understand how things ‘spread in time and space’ (Latour, 1986, p. 267), and more recently, has been used to understand the spread of management ideas and practices (Czarniawska and Sevón, 1996; Callon, 1986). Rather than taking innovations as ‘things’ that are spread to different organisations:

*‘in this perspective, management ideas are translated into objects (models, books, transparencies), are sent to other places than those where they emerged, translated into new kind of objects, and then sometimes into actions....The concept of translation works exactly because it is polysemous: usually associated with language, it also means transformation and transference. It attracts attention to the fact that a thing moved from one place to another cannot emerge unchanged: to set something in a new place or another point in time is to construct it anew’* (Czarniawska, 2009, p. 425).

The process of translation is contextualised and enabled by the networks of power that frame and legitimise it. Thus, rather than focusing on the power of the actor that transmits the idea to an ‘other’, translation theory suggests that the idea is translated through the receiver’s power, thus ‘more agency is placed with what was previously termed “the controlled”, while still placing that agency under structural constraints’ (Kalonaityte and Stafstudd, 2005, p. 5). Thus, networks of agents seek alliances to legitimise their construction so that it, in effect, becomes a ‘black box’, achieving a legitimised solidity which remains unquestioned for some time (Latour and Woolgar, 1979).

Such an approach is sensitive to both the dynamics by which networks of power shift though time and space and the potency of the ‘recipient’ of management knowledge. As such, it is potentially useful in showing how ideas are negotiated through the agency of those who would traditionally be depicted as the receivers of knowledge. In the consulting world, the concept helps counter the representation of clients as passive recipients of service innovations and instead enables an understanding of how ideas are translated as power relationships shift over time (Doorewaard and Bijsterveld, 2001; Saka, 2004, Suddaby and Greenwood, 2001).

The depiction of consultants in studies of translation tends towards imagery of partnership, focusing on the joint production of knowledge or the ways in which the power of the client is exercised through agency to exert control over both the consultancy and their forms of knowledge (Werr and Linnarsson, 2002; Werr and Stjernberg, 2003). A common metaphor concerning consultants who translate is that of the bricoleur. This emphasises both the inherent ambiguity of knowledge in this perspective and the work done to transform knowledge by consultants and clients (Benders et al., 1998; Benders and van Veen, 2001; Morris, 2001; Visscher, 2001).

## 2.3 Knowledge evolution

The third perspective emphasises the way in which knowledge evolves through a dynamic of replication, selection and variation (Nelson and Winter, 1992; Carayannis, 2008; Baum and Singh, 1994). This incorporates knowledge transfer (replication) but also incorporates selection, by which the client has some ability to select more effective or attractive forms of knowledge, and variation, whereby replicated instances of any idea will contain variations in form and content from the original idea, whether by chance mutation or by intentional agency (Clarke, 2009). Thus, from this perspective, knowledge, like many technological inventions, is subject to a social dynamic by which the ‘fittest’ ideas (i.e. those best suited to their environment) survive, whilst others die. Such a view is inherently processual in that it relies upon knowledge transfer taking place repeatedly and temporally (Williams, 2004).

Consultants represented in studies of knowledge evolution are seen as both replicators (as above) but also as providing elements of variation (for example, by changing models for new clients). Central to their the evolutionary dynamic are the networks by which their knowledge is transmitted (Baum and Singh, 1994, p. 43) and also the frequency with which knowledge is transmitted (ibid. p.149). The result is not knowledge that is inherently ‘better’ (i.e. more efficient or profitable) but one that is more keenly suited to the changing



environment. O'Mahoney (2007), for example, shows how forms of BPR evolved through the activities of consultants and clients replicating, selecting and varying a model for their own purposes.

## 2.4 Context dependency or perspective?

The three theories of knowledge outlined above tend to be used rather single-mindedly by the associated authors. Translation theorists, for example, rarely suggest that an evolutionary answer might be more applicable than translation to a new case, and vice versa. However, from the discussion above it does seem that in some situations an evolutionary perspective might be more applicable because there are opportunities for replication, selection and variation, and in others a translation perspective might be more suited.

For this reason, we examine in more detail, below, the role of consultants in developing countries. This is chosen precisely because it provides greater extremes of environmental conditions than are usually studied in Western corporations. In developing countries, as we shall see, interventions range from the wholesale transformation of a country after a war to a training intervention in a charity project. Such diversity will help us examine more closely the different examples of what happens to management knowledge when it is diffused and to understand if differing theories can help us understand how this happens.

## 3. Consultancies: International Development

In this section, we provide an overview of the types of interventions that consultants make in developing countries. We have specifically chosen extreme examples which are relatively unheard of in Western interventions. As the literature is relatively scarce, we seek not to provide a comprehensive categorisation but instead to illustrate 'extreme' forms of consulting interventions: Forced, Invited and Humanitarian. These are ideal types. In reality, they are often mixed together or incorporate each-other, however, for the purposes of theory, separating them enables a clearer understanding of how knowledge diffusion might be understood to vary in each case.

### 3.1 Forced Interventions

A 'forced' intervention is the one in which a country is compelled to accept macro-economic reform. This generally occurs in exchange for a bail out (e.g. in Argentina 1999-2000) or as a package after the end of a war (e.g. Germany 1946; Iraq 2003-2011). In these situations consultants are often introduced as experts when the local population are perceived either to have little expertise in the types of neo-liberal programmes that are implemented, or political pressure has been applied for the contracts to be awarded to Western companies (del Castillo, 2008). The consultants that are bought in tend to be paid for by a third party. In the case of financial bail-outs, the International Monetary Fund or the World Bank, whilst after the Iraq and Afghanistan wars, primarily the US Department of Defence.

These interventions tend to be characterised by a high maturity of consulting knowledge, clients' incapacity of negotiating their position or communicating their needs, high project complexity and low project frequency. The many examples of this type of intervention tend towards the implementation of 'neo-liberal' reforms such as privatisation, de-regulation and the shrinking of the state.

This project definition leads to several hypotheses based upon our discussion of knowledge. The first such hypothesis is that *forced interventions are likely to involve knowledge transfer*. Since institutions such as the IMF/WB/USDF are paying the bills, the low power of the client means that 'expertise' is likely to be pressed upon the recipient country.

However, for the transfer of this knowledge, third parties (such as consultants and economic advisors) from Western companies are generally used. Therefore, the second hypothesis is that *in forced interventions, consultants act as carriers of knowledge from the 'West' to the developing country*.

In these circumstances, the recipient country generally has a weak bargaining position – they have either recently lost a war or are in desperate need for funds. Such a position means that the power is primarily in the hands of the Western countries who fund the consultants. Furthermore, the client often has little 'expert' knowledge of the types of programmes that are being forced upon it and often are recalcitrant or resistant administration in place. Therefore, the dominance of the Western consultants is two-sided, as many studies show that low levels of collaboration and partnership in knowledge transfer projects increase the likelihood of project failure. Due to the nature of these forced interventions the client has little relevant knowledge and

limited power to decide on the project's implementation. This situation, combined with the typically high project complexity would, we suggest, negatively influence the success of the projects. Our third hypothesis is that *in the case of forced interventions knowledge transfer projects have a high failure rate*.

### 3.2 Voluntary Interventions

In voluntary interventions a recipient country brings in, from its own choice, expertise from the outside, often after a change of government who wish to bring in reform, or some other sort of significant event. These types of projects tend to be characterised by a high maturity of consulting knowledge and a medium/high capacity of clients to negotiate their position. Also, the frequency of the projects tends to be low, but they are usually of high complexity.

One example of voluntary intervention would be the case of local officials from Shanghai that used consultants regional development expertise. This case is presented by Chien and Ho (2011) and points out to the fact that although the intervention was requested by the recipient and its results were satisfactory, the client selected how to use its outcomes.

Taking into account the characteristics of this type of intervention, we propose several hypotheses. Firstly, *it is more likely that voluntary interventions involve translation of knowledge*. The client country pays for the project, the relationship with the consultants is direct and therefore the client has significantly more power. Considering this balance of power, the knowledge that the consultants originally possess is more likely to be transformed and adjusted to better respond to the local requirements.

This adaptation is conducted by the consultants themselves, acting on the explicit or implicit requests of the clients. Therefore, our second hypothesis is that *in the case of voluntary interventions consultants act as translators of knowledge*.

Due to the fact that the client has the ability to choose the consultants, has control over their activity and the knowledge they provide, our third hypothesis is that *the failure rate is lower in voluntary interventions than in the case of forced intervention*. However, factors such as the low frequency of this type of projects negatively influence their success rate.

### 3.3 Humanitarian Interventions

For an example of humanitarian intervention we use the case of the work conducted under UK aid from the Department for International Development (DfID), as presented in the Country Evaluation Programme for Sudan (Foster et al., 2010).

Developmental aid is often humanitarian in nature and focuses around key areas such as disease, water, food (e.g. the Clinton Foundation). These humanitarian interventions tend to imply simpler projects, which are therefore more likely to be evolutionary. They happen more frequently and thus have more chance for replication and variation.

This project definition leads to several hypotheses based upon our discussion of knowledge. Firstly, we believe that *humanitarian interventions tend to involve the evolution of forms of knowledge*, the consultants being able to change some parts of the project. The projects brought by humanitarian interventions often possess significant unique characteristics, which provide unique challenges for the consultants. Therefore, as a second hypothesis, we propose *that consultants generally play the role of experimenters in these projects*. Thirdly, in terms of the failure rate of these projects, it is hypothesized that although significant, *humanitarian interventions will improve over time*.

## 4. Discussion

The overview of the types of interventions carried out by consultants in developing countries presented in the previous section was used to identify a set of characteristics which are most likely associated with this types of interventions (Table 1).

**Table 1: Characteristics of Different Consultancy Interventions**

<b>Interventions</b>	<b>Forced</b>	<b>Invited</b>	<b>Humanitarian</b>
<b>Typical Case</b>	Iraq	China	Sudan (Darfur)
<b>Project Complexity</b>	High	High	Medium
<b>Typical Project</b>	Neo-liberal ideas are passed, with relative stability, from the West to the Developing Country.	Knowledge of a more specific nature is sought by the Developing Country	Interventions justified on moral grounds
<b>Power / Knowledge of Client</b>	Low	Medium – High	Low
<b>Project Frequency</b>	Low	Low	High
<b>Who Pays?</b>	Third Party	Client country	Development Agencies / Local client / Pro bono work
<b>Who Governs?</b>	Budget holder (IMF / WB / USDF)	Local Client	Development agencies / Local Client

The characteristics presented in Table 1, combined with the theoretical framework we used for the diffusion of management knowledge led us to a series of hypotheses regarding the impact the different types of intervention have on the form of knowledge dissemination, the role played by consultants and the chances of success/failure of the projects (Table 2). Since the types of consultant interventions taken into account in our analysis of international development were purposely chosen to be “extreme” it is implicit that the resulting hypothesis are designed to provide more general rather than comprehensive and precise guidelines for future research.

**Table 2: Hypotheses of Different Consultancy Interventions**

<b>Interventions</b>	<b>Forced</b>	<b>Invited</b>	<b>Humanitarian</b>
<b>Form of knowledge dissemination</b>	Transfer of knowledge	Translation of knowledge	Evolution of knowledge
<b>Role of Consultants</b>	Carriers of knowledge	Translators of knowledge	Experimenters
<b>Failure Rate</b>	High	Medium	Medium (Improving)

We hypothesise that knowledge transfer will be most common in ‘forced projects’, knowledge translation would be typical of ‘invited projects’ and knowledge evolution should be evident in ‘humanitarian projects’. In addition, it is hypothesised that forced projects will be the most likely to fail because they encourage the transfer of management knowledge, with little appreciation of the important political and cultural sensitivities which can derail a project. Invited and humanitarian projects are likely to have smaller chances of failure, due to the increased interactivity between the consultants and the clients (and the higher project frequency in the case of humanitarian projects).

The hypotheses generated in this paper contribute to organisation studies by proposing a relationship between types of knowledge transfer and the socio-political context of the interventions. These hypotheses can be used as the basis for future research, both quantitatively, by testing, and qualitatively by exploring the mechanisms further. It appears necessary to introduce both macro-economic and political dimensions to the studies in this field, especially in the current context that provides important material for research in the area of diffusion of neo-liberal ideas and the role of consultants in this process.

## 5. References

- Abrahamson, E. (1996) Management fashion, *Academy of Management Review*, 21, p. 254-285.
- Backlund, J., Werr, A. (2008) Constructing the legitimate buyer of management consulting services, *Journal of Organizational Change Management*, 21 (6), p. 758-772.

- Baum, J. A., Singh J. V. (eds.) (1994) *Evolutionary Dynamics in Organizations*, New York: Oxford University Press.
- Benders, J., van den Berg, R.-J., van Bijsterveld, M. (1998) Hitch-hiking on a Hype: Dutch Consultants Engineering Re-engineering, *Journal of Organizational Change Management*, 11 (3), p. 201-215.
- Benders, J., van Veen, K. (2001) What's in a fashion? Interpretative viability and management fashion, *Organization*, 8 (1), p. 33-53.
- Bessant, J., Rush, H. (1995) Building bridges for innovation: the role of consultants in technology transfer, *Research Policy*, 24 (1), p. 97-114.
- Callon, M. (1986), Some elements of a sociology of translation: domestication of the scallops and the fishermen of St Brieuc Bay. In: Law, J. (Ed.), *Power, Action and Belief*. London: Routledge & Kegan Paul, p. 196-233.
- Carayannis, E. G. (2008) Strategic Knowledge Arbitrage and Serendipity as Real Options Drivers Triggered by Co-Opetition, Co-Evolution, and Co-Specialization, *Industry and Higher Education*, 22 (6), p. 343-353.
- Carson, P. P., Lanier, P.A., Carson, K. D., Guidry, B. N. (2000) Clearing a path through the management jungle: Some preliminary trailblazing, *Academy of Management Journal*, 43, p. 1143-1158.
- Chien, S.-S., Ho, B. (2011) Globalization and the local government learning process in post-Mao China: a transnational perspective, *Global Networks*, 11 (3), p. 315-333.
- Clarke, S. (2009) *Evolutionary concepts in end user productivity and performance*, Information Science Reference: London.
- Czarniawska, B. (2009) Emerging Institutions: Pyramids or Anthills?, *Organization Studies*, 30 (4), p. 423-441.
- Czarniawska, B., Sevón, G. (eds.) (1996) *Translating Organizational Change*, de Gruyter: Berlin.
- Del Castillo, G. (2008) *Rebuilding War-Torn States: The Challenge of Post-Conflict Economic Reconstruction*. Oxford: Oxford University Press.
- Doorewaard, H., van Bijsterveld, M. (2001) The osmosis of ideas: An analysis of the integrated approach to IT management from a Translation Theory perspective, *Organization*, 8 (1), p. 55-76.
- Guillen, M. (2001) Is globalization civilizing, destructive or feeble? A critique of five key debates in the social science literature, *Annual Review of Sociology*, 27 (1), p. 235-260.
- Foster, M., Bennett, J., Brusset, E., Kluyskens, J. (2010) Country Programme Evaluation: Sudan, Department for International Development, Evaluation Report EV708.
- Hansen, M. T., Nohria, N., Tierney, T. (1999) What's Your Strategy for Managing Knowledge?, *Harvard Business Review*, 77 (2), p. 106-16.
- Harris, C. R., Purdy, R. L. (2000) The position of TQM in management rhetoric, *Proceedings of ASAC/IFSAM Conference*, Montreal, Canada, 21 (7), Production/Operations Management Division.
- Heady, R. B., Smith, M., Robert, L. P., Logan, G. T. (1997) Leadership in authoring the quality management literature, *Journal of Quality Management*, 2 (1), p. 139-149.
- Heusinkveld, S., Benders, J. (2002) Between Professional Dedication and Corporate Design: Exploring Forms of New Concept Development in Consultancies, *International Studies of Management and Organization*, 32 (4), p. 104-122.
- Heusinkveld, S., Benders, J. (2005) Contested commodification: Consultancies and their struggle with new concept development, *Human Relations*, 58 (3), p. 283-310.
- Huczynski, A. (1993) Explaining The Succession Of Management Fads, *International Journal of Human Resource Management*, 4 (2), p. 443-463.
- Kalonaityte, V., Stafsudd, A. (2005) *The power of Translation: Preserving Legitimacy and Self-value through the Justified Exclusion of Other*, Open Stream, CMS.
- Kieser, A. (1997) Rhetoric and myth in management fashion, *Organization*, 4 (1), p. 49-74.
- Kitay, J., Wright, C. (2004) Take the Money and Run? Organisational Boundaries and Consultants' Roles, *Service Industries Journal*, 24 (3), p. 1-18.

- Latour, B. (1986) The power of association. In J. Law (Ed.), *Power, action and belief*, p. 264–280, London: Routledge & Kegan Paul.
- Latour, B., Woolgar, S. (1979) *Laboratory life: The social construction of scientific facts*, Beverly Hills, CA: Sage.
- McKenna, C. D. (2006) *The World's Newest Profession: Management Consulting in the Twentieth Century*, Cambridge: Cambridge University Press.
- Micklethwait, J., Wooldridge, A. (2003) *A Future Perfect: The Challenge and Promise of Globalization*, New York: Random House.
- Morgan, G., Froud, J., Quack, S., Schneiberg, M. (2011) Capitalism in crisis: organizational perspectives, *Organization*, 18 (2), p. 147-152.
- Morris, T. (2000) From Key Advice to Execution? Consulting Firms and the Implementation of Strategic Decisions. In: P. Flood, T. Dromgoole, S. Carroll, L. Gorman (Eds.) *Managing Strategic Implementation: An Organizational Behaviour Perspective*, p. 125–137, Oxford: Blackwell.
- Morris, T. (2001) Asserting property rights: Knowledge codification in the professional service firm, *Human Relations*, 54 (7), p. 819–838.
- Mueller, F., Whittle, A. (2011) Translating Management Ideas: A Discursive Devices Analysis. *Organization Studies*, 32 (2), p. 187-210.
- Nelson, R. R., Winter, S. G. (1982) *An Evolutionary Theory of Economic Change*, Cambridge, MA: Belknap.
- O'Mahoney, J. (2007) The Diffusion of Management Innovations: The Possibilities and Limitations of Memetics, *Journal of Management Studies*, 44 (8), p. 1324-1348.
- Prichard, C., Mir, R. (2010) Editorial: Organizing value. *Organization*, 17 (5), p. 507-515.
- Saka, A. (2004) The cross-national diffusion of work systems: Translation of Japanese operations in the UK, *Organization Studies*, 25 (2), p. 209-228.
- Stone, D. (2004) Transfer agents and global networks in the “transnationalization” of policy, *Journal of European Public Policy*, 11 (3), p. 545-566.
- Strange, S. (1997) The future of global capitalism; or will divergence persist forever?. In: C. Crouch, W. Streeck (Eds) *Political Economy of Modern Capitalism: Mapping Convergence and Diversity*, p. 182–191, London: Sage.
- Sturdy, A. (2004) The adoption of management ideas and practices: theoretical perspectives and possibilities, *Management Learning*, 35 (2), p. 153–177.
- Suddaby, R., Greenwood, R. (2001) Colonizing knowledge: Commodification as a dynamic of jurisdictional expansion in professional service firms, *Human Relations*, 54 (7), p. 933–953.
- Visscher, K. (2001) *Design methodology in management consulting*, Enschede: University of Twente.
- Werr, A., Linnarsson, H. (2002) Management consulting for client learning? Clients' perceptions on learning in management consulting. In: Buono, A. (Ed.), *Knowledge and Value Development in Management Consulting*, Information Age Publishing, Greenwich, p. 3–31.
- Werr, A., Stjernberg, T. (2003) Exploring Management Consulting Firms as Knowledge Systems, *Organization Studies*, 24 (6), p. 881-908.
- Whittle, A., Mueller, F., Suhomlinova, O. (2010) Funnel of Interests: The Discursive Translation of Organizational Change, *Journal of Applied Behavioral Science*, 46 (1), p. 16-37.
- Williams, R. (2004) Management fashions and fads: Understanding the role of consultants and managers in the evolution of ideas, *Management Decision*, 42 (6), p. 769-780.
- Matthias Kipping and Christopher Wright (forthcoming) ‘Consultants In Context: Global Dominance, Societal Effect and the Capitalist System’, in Clark, T. & Kipping, M. (eds.) *The Oxford Handbook of Management Consulting*, Oxford, Oxford University Press.
- Wright, C., Kwon, S.-H. (2006) Business Crisis and Management Fashion: Korean Companies, Restructuring and Consulting Advice, *Asia Pacific Business Review*, 12 (3), p. 355-373.

Tudor Ciumara acknowledges support from the "Economic scientific research, support for welfare and human development in European context" project. This paper is supported by the Sectorial Operational Programme Human Resources Development (SOP HRD), financed from the European Social Fund and by the Romanian Government under the contract number SOP HRD/89/1.5/S/62988.

# THE HUMAN DEVELOPMENT INDEX AND THE EVOLUTION OF THE QUALITY OF LIFE

*CODREANU Carmen Mariana*

*Associate professor Ph.D., Faculty of Economics, "Petre Andrei" University from Iasi, Iasi, Romania,  
codrcarmen@yahoo.com*

**Abstract:** *The concept of QoL can both relate to the overall assessment of life and evaluate the spheres of life: quality of work, quality of the environment, quality of interpersonal relationships and quality of family life. The human development index is aimed at showing the evolution of the living standards and includes a three-dimensional approach that covers items such as life expectancy, literacy and real per capita GDP. The proposed indicator is an attempt to develop a tool for tracking the evolution of human development, more deeply than other aggregate indicators and even more deeply than a series of statistical indicators.*

**Key words:** quality of life (QoL), human development, GDP

**JEL classification:** O15

## 1. Introduction

One can say that a system of indicators is performing if it allows correlating the social results with the causes on the one hand and the various related aspects of the social life on the other hand.

The systems of indicators used for analyzing the quality of life are formed differently, depending on the development of the respective country. Developed countries use a system of indicators aimed at quantifying the quality and level of investment in human capital, social security, personal security, etc. Developing countries take into consideration those systems of indicators that determine the level of poverty and welfare.

The quality of life can be analyzed at both micro and macroeconomic level.

The subject of quality of life developed rapidly in the '60s as a reaction to the abundance crisis in the developed countries. The basic idea started from the fact that economic growth should not be an aim in itself, but a means of creating better living conditions, of meeting the needs of a particular community. A series of living standard indicators have been developed for assessing the living conditions.

The main types of quality of life indicators are:

- Status indicators of the different components of human life;
- Need or aspiration indicators;
- Complex indicators resulting from relating the status to the needs;
- Perceived quality of life indicators – which determine how the members of a community assess the quality of the different components of their lives by themselves;
- Indicators of the critical symptoms of the quality of life.

Development is a preamble to improving the quality of life and includes both the material elements such as infrastructure, housing quality and the living standard in general and the spiritual elements such as education, freedom of expression and cultural freedom.

"Human development can be defined as a process of enlarging people's capacity of option. Choices can regard different areas: political freedom and participation in community life, being educated and benefitting from freedom of expression, surviving and living a healthy life or enjoying a decent standard of living" (Mahbub, 1996).

## 2. In what way is affected the quality of life by the human development index?

Sustainable development is a condition for the full social/human development of the future generations, while the quality of life/human welfare is the goal of all these development processes. Of course, this distinction is not always admitted when it comes to measuring: human development indicators or sustainable development indicators, just like other social indicators, are often presented together with the quality of life indices. In turn, social development indicators include quality of life and sustainable

development measures and many authors consider that they need to be focused on the results, not on the inputs into the social system (Barnett, 1988).

The human development index was first introduced in the summer of 1990. The aim was to provide an indicator of a country's level of development, which had to be more complete than the simple measurement of its national product. UNDP justified its attempt by the need to provide an informative value exceeding the strict quantitative aspects (UNPD, 2011).

The proposed indicator is an attempt to develop a simple tool for tracking the evolution of human development, much more deeply than other aggregate indicators and even more deeply than a series of statistical indicators (McGillivray; White, 2006).

In this context, the concept of human development is considered to be "a process that broadens the range of possibilities offered to the individuals", whose fundamental requirements are lifetime and health, knowledge accumulation and possession of resources that enable them to benefit a decent life. These elements are expressed by the following three variables: life expectancy, education level and income.

According to the opinion of the indicator's promoters, an authentic development allows individuals to dispose of these options. The development process will lead to a favourable climate which will offer individuals and the communities the chance to achieve their potential and lead productive, creative lives in accordance with their own needs and interests. Human development is converted into two vectors: on the one hand, the consolidation of personal capacities (through the progresses regarding health, knowledge and skills) and, on the other hand, the use that the individual assigns to these capacities, in productive or cultural, social or political purposes, during work or leisure.

The indicator tends to be a more significant assessing tool than the per capita income. Indeed, the income is a means of reaching human development, not an aim. By considering the strictly material dimension as one of the determinant factors of the living standard, although not reaching a comprehensive measurement of all its theoretical premises, the human development indicator assesses a country's level of development from a qualitative point of view.

The Human Development Index is constructed as an average of three indicators: life expectancy at birth, education level and the standard of living, measured by the real GDP per capita. The Human Development Index can range between 0 and 1 (UNPD, 2011).

Human development indicators have the following components:

- Human Development Index: life expectancy at birth, adult illiteracy rate, combined illiteracy rate, income per capita (PPP);
- Development indicators by gender: life expectancy at birth by gender, adult illiteracy rate by gender, combined illiteracy rate by gender, income per capita (PPP) and distribution of working income on women and men;
- Human development indicators for developing countries: the percentage of people with life expectancy under 40 years, adult illiteracy rate, percentage of people without access to running water, the percentage of people without access to health services, the percentage of children suffering of malnutrition;
- Human development indicators for industrialized countries: the percentage of people with life expectancy under 60 years, adult illiteracy rate, percentage of people living in poverty, long-term unemployment (12 months and more).

The Human Development Report Office strives at including as many UN member countries as possible in the HDI. To include a country in the HDI we need recent, reliable and comparable data for all three dimensions of the Index. For a country to be included, statistics should ideally be available from the relevant international data agencies.



**Table 1: Human Development Index**

	27 EU members	Human Development Index (HDI)	Life expectancy at birth	Mean - years of schooling	Expected years of schooling	Per capita GNI Const. 2005 PPP\$	Per capita GNI rank minus HDI rank	Non income HDI
HDI rank								
<b>VERY HIGH HUMAN DEVELOPMENT</b>								
1	Netherlands	0.910	80.7	11.6	16.8	36,402	9	0.944
2	Ireland	0.908	80.6	11.6	18.0	29,322	19	0.959
3	Germany	0.905	80.4	12.2	15.9	34,854	8	0.940
4	Sweden	0.904	81.4	11.7	15.7	35,837	4	0.936
5	Denmark	0.895	78.8	11.4	16.9	34,347	3	0.926
6	Belgium	0.886	80.0	10.9	16.1	33,357	2	0.914
7	Austria	0.885	80.9	10.8	15.3	35,719	-4	0.908
8	France	0.884	81.5	10.6	16.1	30,462	4	0.919
9	Slovenia	0.884	79.3	11.6	16.9	24,914	11	0.935
10	Finland	0.882	80.0	10.3	16.8	32,438	0	0.911
11	Spain	0.878	81.4	10.4	16.6	26,508	6	0.920
12	Italy	0.874	81.9	10.1	16.3	26,484	6	0.914
13	Luxembourg	0.867	80.0	10.1	13.3	50,557	-20	0.854
14	Czech Republic	0.865	77.7	12.3	15.6	21,405	14	0.917
15	United Kingdom	0.863	80.2	9.3	16.1	33,296	-7	0.879
16	Greece	0.861	79.9	10.1	16.5	23,747	5	0.902
17	Cyprus	0.840	79.6	9.8	14.7	24,841	2	0.866
18	Estonia	0.835	74.8	12.0	15.7	16,799	13	0.890
19	Slovakia	0.834	75.4	11.6	14.9	19,998	8	0.875
20	Malta	0.832	79.6	9.9	14.4	21,460	4	0.866
21	Hungary	0.816	74.4	11.1	15.3	16,581	11	0.862
22	Poland	0.813	76.1	10.0	15.3	17,451	7	0.853
23	Lithuania	0.810	72.2	10.9	16.1	16,234	10	0.853
24	Portugal	0.809	79.5	7.7	15.9	20,573	1	0.833
25	Latvia	0.805	73.3	11.5	15.0	14,293	12	0.857
<b>HIGH HUMAN DEVELOPMENT</b>								
26	Romania	0.781	74.0	10.4	14.9	11,046	20	0.841
27	Bulgaria	0.771	73.4	10.6	13.7	11,412	14	0.822

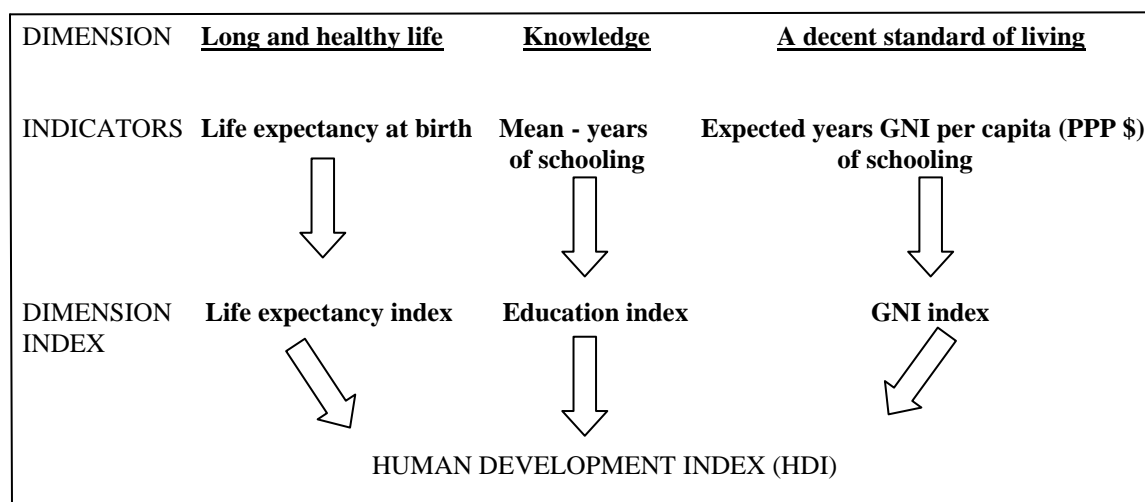
Source: UNPD, Human Development Report 2011, Sustainability and Equity: A Better Future for All

The Human Development Index (HDI) is a measure of human development. It measures the average achievements in a country in three basic dimensions of the human development: a long and healthy life, access to knowledge and a decent standard of living.

The HDI is a geometric mean of normalized indices measuring achievements in each dimension.

The graphic method of calculating the Human Development Index is the following:

**Figure 1 – Calculating the Human Development Index – graphical presentation**



Source: UNPD, Human Development Report 2011, Sustainability and Equity: A Better Future for All

### 3. Conclusions

The HDI remains a composite index that measures progress in the three basic dimensions—health, knowledge and income. Under the previous HDI formula, health was measured by life expectancy at birth; education or “knowledge” by a combination of the adult literacy rate and school enrolment rate (for the first - university years); and income or standard of living by GDP per capita at purchasing-power parity (PPP US\$).

The human development indicator (HDI) is calculated in order to show the evolution of people’s quality of life. It includes a three-dimensional approach that covers items such as life expectancy, literacy and real per capita GDP. Highlighting the developments in the three areas is done by using associated indicators, such as: life expectancy index, education index and the GDP index.

The life expectancy index measures the performance of a country in this respect, starting from the average life expectancy at birth in relation to the minimum level considered (25 years). The maximum level considered is 85 years.

The education index is composed by the aggregation of two items: adult literacy and school enrollment at the three levels of education. For each of the two an index is determined. The two indices are combined using a two-thirds share for the adult literacy index and a one third share for the school enrollment index.

The PIB Index includes the gross domestic product per capita expressed at purchasing power parity.

The HDI is calculated as a simple average of these three indicators, its values indicating the degree of development in reverse order.

Based on these methodological issues one can see the fact that the HDI is a very slight representative tool for highlighting the developments in the area of quality of life improvements. It covers too few and too large areas in order to be able to elaborate conclusions regarding the aggregate evolutions of human development. These areas are not necessarily related and complementary, which could create an overview of the indicator much closer to the aim pursued. For example, a high degree of literacy and school enrollment does not necessarily imply a high value of the real GDP per capita index.

Moreover, the HDI also includes a component which is dominated by chance. While literacy and school enrollment are measurable, life expectancy can only be estimated. Environmental conditions, genetic aspects and lifestyle influence this indicator decisively. In such circumstances it is possible that life expectancy is higher in countries with an underdeveloped medical and health insurance system. Or the latter are relevant items of a country’s level of human development.

**This work was supported by the project "Post-Doctoral Studies in Economics: training program for elite researchers - SPODE" co-funded from the European Social Fund through the Development of Human Resources Operational Programme 2007-2013, contract no. POSDRU/89/1.5/S/61755.)".**

#### **4. References**

- Ambuj D. Sagara, Adil Najam (1998), *The human development index: a critical review*, Ecological Economics, Vol. 25, No. 3, pp. 249-264.
- Barnett, T. P.M. (1988)– *Sociology and development*, Hutchinson, London, p.10.
- Baumol, William J. (1990), *Entrepreneurship: Productive, Unproductive, and Destructive*, Journal of Political Economy, Vol. 98, No. 5.
- Beddoe, R.; Costanza, R.; Farley & All. (2009), *Overcoming systemic roadblocks to sustainability: the evolutionary redesign of worldviews, institutions, and technologies*, Proceedings of the National Academy of Sciences of the United States of America 106 (8).
- Caplan, Brian (2009), *Against the Human Development Index*, Library of Economics and Liberty.
- Chafuen, Alejandro A.; Guzmán Eugenio (2000), *Economic Freedom and Corruption*, Heritage Foundation. Available at [http://www.heritage.org/Index/chapters/pdf/Index2000\\_Chap3.pdf](http://www.heritage.org/Index/chapters/pdf/Index2000_Chap3.pdf) (pdf).
- Maddison, A. (2010), *Historical Statistics of World Economy: 1-2008*, AD. Paris: Organization for Economic Cooperation and Development.
- Riley, J.C. (2005), *Poverty and Life Expectancy*. Cambridge, UK: Cambridge University Press;
- Noorkbakhsh (1998), *The Human Development Index: Some Technical Issues and Alternative Indices*. Journal of International Development 10, 589-605.
- Commission of the European Communities (2008), *Progress Towards the Lisbon Objectives in Education and Training. Indicators and benchmarks 2008*, Available at [www.ec.europa.eu](http://www.ec.europa.eu).
- Dolton, Peter J.; Silles, Mary A. (2008), *The effects of over-education on earnings in the graduate labour market*, Economics of Education Review, No. 27.
- Hanushek, Eric A.; Wössmann, Ludger (2007), *The Role of Education Quality in Economic Growth*, World Bank Policy Research, Working Paper No. 4122, February.
- Mahbub, ul H. (1996), – *Reflecții asupra Dezvoltării Umane (Reflections on Human Development)*, First edition, Oxford University Press.
- Marinescu, C. (coord.) (2007), *Economia de piață: fundamentele instituționale ale prosperității (Market economy: the institutional grounds of prosperity)*, ASE Publishing House, București;
- McGillivray, M. White, H. (2006), *Measuring development? The UNDP's human development index*, Journal of International Development, Vol. 5, No. 2.
- Schadler et al. (2006) - *Growth in Central and Eastern European Countries of the European Union: A Regional Review*, IMF Occasional Paper No. 45.
- UNPD (2011), *Human Development Report 2011*, Sustainability and Equity: A Better Future for All
- \*\*\* *Global Competitiveness Report 2006-2007*, World Economic Forum, Available at [www.weforum.org](http://www.weforum.org).
- \*\*\* *Economic Freedom of the World 2008*, Fraser Institute, Available at [www.fraserinstitute.org](http://www.fraserinstitute.org).
- \*\*\* *Tables and statistics*, United Nations Development Programme, 2009, Available at [www.undp.org](http://www.undp.org).
- \*\*\* <http://economics.harvard.edu/faculty/jorgenson/files/EconOfProductivity>
- \*\*\* 2011a. *World Development Indicators database*. Washington, DC. <http://data.worldbank.org/data-catalog/world-development-indicators>.

# THE IMPACT OF LATEST IT TECHNOLOGIES OVER THE EFFICIENCY OF A KNOWLEDGE-BASED ORGANIZATION MANAGEMENT IN ROMANIA

**COJOCARU Camelia**

**PhD, Associate Professor, Faculty of Business and Administration,  
University of Bucharest, [camelia.cojocaru@student.faa.ro](mailto:camelia.cojocaru@student.faa.ro)**

**Abstract:** *This Paper aims to focus its scope towards understanding the impact of latest IT technologies over the attitude and decision issues within the economic organizations and business domain. In this aspect, the Paper performed an explorative research among the IT responsible of representative companies in Romania. Both quantitative and qualitative research's results revealed new insights in the companies' responses to the latest dramatic changes in the informational technologies, in order to cope with the persistence of the global economic crisis and to assure increase of organizational efficiency and profit.*

**Key words:** knowledge management, knowledge organisation, information technology, IT transformation

**JEL classification:** O33 - Technological Change: Choices and Consequences; Diffusion Processes

## 1. Introduction

You will find below a series of statistics that underline the unprecedented increase of the information technologies, and especially the consumerisation of the IT services, to support the approach of this Paper:

a) We are witnessing a real data explosion: large amount of data bytes are produced every day. This volume is so huge, that 90% of the global data were created during the past two years. The volume, the variety and the frequency of the information available on digital sources (such as social networks, among traditional sources – sales and market researches) represent actually the most important challenge that the companies have to face. The difficult part consists in how the huge data volume is analysed to extract useful information, and also in the efficient use of these pieces of information, that must lead to the improvement of products, services and quality of business decisions. Thousands of data terabytes are created every year around the world. We count here documents, images, videos, mass-media broadcasts and other similar categories. The pieces of information categorized as services provided by journalists, accountants, doctors, consultants, etc., are not included here.

b) Due to social media, any user can now become an editor, a broadcaster or a critic. Facebook has over 845 million of active users at the end of December 2011 (according to Facebook), and each user posts about 90 announcements per month. Twitter users send over 140 million messages every day. In 60 days, the 490 million YouTube users provide more video content than what has been created by the three important American TV stations in 60 years. Modern companies use social networks to communicate (56% of the executives consider social networks an important communication channel), but face difficulties in obtaining relevant information from the many unstructured data provided by clients and potential clients.

c) 2/3 adults use social networks such as LinkedIn, Facebook or Twitter; there are 135 million active members on LinkedIn, and more than 80% are decision makers in their company; we can also say that a big number of companies and organizations are present in these networks, creating and offering relevant and official information; in 2011, 14.4 million used social media to find a job; 88% of the employers consider that references on social media are the best source of high qualified employees;

d) An average social media user accesses the applications from a PC or from the mobile devices and is connected to around 80 pages, events or groups;

e) There are many new devices, from smartphones to PC and tablets. The mobile e-commerce is expected to reach 31 billion dollars by 2016, representing an annual increase of 39%, between 2011 and 2016. In the same time, the tablet market is expected to reach 70 million units on a global level by the end of the year, with an increase up to 294 million of units by 2015.

f) The market is changed by the influence of new generations, with different access points and information consumption. Companies need to adapt their strategies and to answer the new Millennium's generation's requirements.

This unprecedented development of IT technologies has led to different changes in the business environment: the appearance and development of knowledge-based organizations, and of the knowledge-based management within the organizations. Within the total resources of a knowledge-based organization, the informational resources register a spectacular dynamic, both in terms of components and kits. The IT resources are now becoming the engine of successful enterprises, representing not only the operational base, but also the means for marketing and communication strategies.

The knowledge-based organizations are able to extract, label, organize, file, apply and share knowledge, experiences and surveys to make superior performances possible. This can be translated in: better business solutions and decisions, a better collaboration and share of information, more capable and qualified jobs.

The knowledge-based management is mainly based on information technology, human resources, strategy and organizational behaviour. This type of managements considers both clear and implicit knowledge as important strategic resources and aims to ensure within the company a better use of knowledge in terms of individual, team or organization as a whole. The result is positive: extraordinary results in innovation, product and service quality, cost decrease and continuous update, according to the market's requests.

In order to face new challenges, the companies must improve their digital and technological knowledge and capacities, in spite of all financial restraints. At the same time, organisations must review the relevance of knowledge management to operational managers within. The consequences of taking a knowledge-based view of the organisation over the different process types are extended.

## **2. The main characteristics of informational resources within knowledge-based organizations**

The high volume of information that a company has, coming both from endogenous and exogenous sources, is in continuous change, with multiple positive effects on the business. The result is that most of the employees (especially in big and middle companies) take special studies in the approach of information and the management of informatics equipment (program operators, analysts, system engineers), together with the increase of knowledge and informatics abilities in the entire team. Dedicated digital applications are developed, and in the same time they are included in complex integrated systems.

One must keep in mind the fact that modern digital integration is based on the principle of consistency that ensures the functional compatibility between all the business tasks: data collection, transcription, processing and deposit. The complexity degree of the applications is in continuous change and is integrated in modern data banks.

The importance within organization of the unstructured, pure information obtained by the stakeholders, and first of all the knowledge-based employers increased. Most of the time, they are seen as tacit knowledge with a major role in the company's functionality and performances.

Transmission, processing and receiving of information between the enterprise's employers or between several companies' employers, within a short period of time, or in real time significantly increased; as a result, the data is more valuable, with multiple positive effects for all the users of the organization.

The company's informatic resources are connected to those external, through different methods: email, Internet, websites, portals resulted to the fact that the stakeholders have access to more and more informatic resources.

There is a major decrease of the costs that are necessary to obtain and use the information, due to cheaper but more performing informatics equipment, and also due to the appearance and implementation of upgraded digital applications that can save and process big data in a quick and efficient manner.

There is the possibility to adapt the information according to specific requirements of the enterprise's main stakeholders and therefore, the quality of their decisions, actions and activities will develop.

At present, companies must handle more tasks than before. They need to administer a higher data volume coming from separate sources, to understand and relate more informed clients, to apply and adapt to upgraded complex instruments and technologies, without forgetting the company's financial resources.

At the same time, there are deep progresses in the informatic hardware and complex systems. An increase in usage and availability of email and other online means of communication resulted in a quick communication within the enterprise and between more enterprises. The rapid development of strong intranet systems ensured a quick functioning of the informational system, easy connection to multiple professional information

providers, as well as informatic, management and economic connection with other enterprises, clients, providers, banks, etc.

We can assist a deep transformation of PCs in a platform for finding, saving and sharing information with other persons. The advanced IT technology makes possible to extract, process and use information in different fields, such as: human language analysis in social media, the analysis of consumers' feelings to create competitive advantages for the enterprise.

The technology world has changed dramatically during the last decade. The main changes referred to the fact that 80% of the world's information is unstructured. Therefore, raw computational power is enormously growing. At the same time, access to information has been democratized, as the information is (or should be) available for all. In the new era, the companies need to improve their traditional IT approaches with technology that allow enterprises to benefit from the big data era. The big data era will be led by the enterprises that could have at their disposal new platforms containing: exploration and development toolsets, visualization techniques, native text analytics, machine learning, cloud computing, virtualization and mobility, all based on enterprise stability and security, among other requisites. In the 1990s, many organizations used different data management systems to store and search their critical data. Later, in 2000s, more sophisticated technologies using XML allowed the enterprises to gain key advantages by using the widespread of e-mail, accumulation of back-office content. Organizations seeking to find a better way of differentiating themselves from their competitors is taking advantages of these information and technologies in order to improve their competitiveness, efficiency, profitability, brand awareness, and many more.

To address the enterprise needs, this paper explores the way of how companies approached this modern problem and embrace the new technologies, as foundation of their success.

As an example, an IBM study, in which over 1700 marketing directors from 64 countries and 19 industrial sectors took part, has shown that most of the marketing directors admit a relevant and on-going change in the way we interact with clients. In the same time, the research shows that the methods used to evaluate the marketing process are also continuously changing or updating. Almost two thirds of the participants consider that by 2015, the performance of marketing investments will be the main tool to measure the efficiency of marketing strategies. Among successful enterprises, the majority of the participants do not feel ready to offer exact data. The IBM research has shown that while 82% of the marketing directors want to increase the usage of social media instruments in the next 3 up to 5 years, only 26% constantly read blogs, 42% follow independent analysis and 48% read consumers' analysis, to change the marketing strategies.

The point of inflexion created by social media represents a permanent change in the approach with clients, according to the study. Almost 90% of the information in real time created now is unstructured data. The marketing directors that use this new source of relevant information are in a very good position to increase the income, to reinvent the relationships with the clients and to create a new brand value. Clients share their experiences in online, providing increased control and influence over brands. This changed balance of power from enterprises to clients also requires new approaches in the marketing process, new instruments and new challenges, in order to stay competitive. The marketing directors are aware of this change, but they try to find solutions. Over 50% of the participants in the IBM study consider that they are not ready enough to administer the new important market forces, from social media to a better client understanding and relationship, indicating the fact that they will need to change completely the traditional marketing instruments to promote brands and products.

The fact that all clients' categories use social media instruments represents a good opportunity for marketing directors to obtain increase in income and brand value and to reinvent the nature of the relationship between enterprises and buyers. The marketing directors that are open to getting relevant information from social media will be much more prepared to anticipate future changes in the market and technology.

New software applications accelerate the decisional process in this big data era. Important IT companies announce the launching of new software applications that offer clients a complex method to decrease the big data volume and to speed up the business processes, by making it easy to obtain useful information. The new software applications access, compress and constantly analyse the data, so that the IT department can deal with more important tasks, such as big data or business analytics. In the last years, hundreds of experts from many innovative companies have worked together to develop new software applications. In big data era, enterprises want to get useful information from big data volume to transform

business operations and to remain competitive in their area of activity. The challenge is aggravated by new advanced application that require instant access to new types and high volume of data generated by social networks, sensors and mobile devices, as well as the exponential increase of data within business applications. The new applications help the companies to find answers ten times faster and to free the storage space, and they also split information from past, present and future, in order to eliminate high costs of codes.

By using new software applications, the companies can access big data for relevant information. The integration of big data and real time data analysis helps to extract useful information from high-unstructured big data faster, such as those generated by social media or mobile devices. The information from the systems can be easily integrated with the help of real time analysis of unstructured data and this allows a faster and better decisional process.

The business processes could be accelerated and the data administration costs reduced also – the new developed systems compress the information immediately, to make it easier for the applications to use and save. This compression accelerates and administrates the data in a more efficient manner, in order for analytics applications to be applied. New software applications automatically evaluate the data frequency need and transfer them on different storage systems, which are more cost efficient. The enterprises could analyse past and future to improve the decisional process – the present software applications allow an easier data access anytime. The continuously increasing data volumes make it more difficult for the clients to access the information in the right moment.

Therefore enterprises should implement new advanced technologies and storage systems, so that the data administration process can be done automatically and information can be split easier than before. With this help, the decision factors and IT department can focus on the development of the company.

For example, the clients in bank sectors need instant access to the accounts, both in online and through mobile devices. New database applications allow answering these needs and help to solve the networking issues, to avoid any lack of service. The new applications also allow the compression of the existing data with about 77%, which means that we use less financial and time resources to administer and save the data.

On the other side, the democratization of information and the unprecedented explosion of social media usage have changed the companies perform their business. Whether we talk about comments posted on special media networks such as: Twitter, Facebook, LinkedIn, the companies are very careful with what they have to say. The companies understand that the comments or complaints are public. Through social networks, the posts can be read, distributed and reposted by thousands of persons. In the same time, they also know that a new client can cost seven times more than keeping an existing client, and that is why they intend to use technology to understand social media discussions and to improve their services.

The companies study the posts from social networks and measure their influence. This is a proof that companies start to pay an increased attention to the voices that can influence. In the same time, they offer equal attention to the “feelings” tendency, to predict the consumer’s opinion on a shopping season, for example. Social media is a tool of an increased importance, very relevant when it comes to creating a brand, having a relationship with clients, and increasing clients’ loyalty. All these factors can be combined to increase brand awareness and create new business.

“Social culture” is more and more talked about, and the culture and management of change represent the base of a real transformation of a business. Many companies organize a special agenda for social media, by preparing an integrated plan to be more competitive and to have a measurable ROE.

The social component is included in business processes. For a good evolution, enterprises must encourage social behaviour of thinking and technology within the company’s strategy, in areas such as client service, human resources, marketing, operations. Many companies hire a strategist for the social media zone. This very important person acts like a lawyer of social media, and works with the employers to make them understand the importance of social mass media. They are also responsible for the brand protection in the online environment.

The idea is for a company to develop activities in those fields that are interesting and important for the community. There is such an increased activity in social media, that it can be very difficult for the CEO to pay attention to the company’s relationship with the customer in social media. Just like people tend to use more and more social media in their personal lives, companies must include these communication channels in their plans, to allow their clients to discuss about – and with – brands in a real dialogue.

Because of Twitter, 140 small characters can make a huge impression. The new technologies could turn the tweets in relevant information – an index for social feelings. The “social feelings index” is an initiative that uses Twitter. With an estimated value of 155 million tweets per day (in 2011), the micro-blogging platform is an excellent tool for „feeling analysis”. The index uses the IBM Analytics technology to process millions of public tweets, with the aim to create in real time public opinion. They transform 140 characters from rough unstructured data into valuable perspectives, feelings and tendencies on many subjects from sport, retail, entertainment, including important events, such as World Series, Super Bowl and Academy Awards. These tools can be used by many industries and companies, especially by retail and sport franchises, for a better understanding of consumers’ opinions towards products and services. By analysing data in real time, new perspectives within organisations can appear, and product marketing can use social media to improve the way the brand is seen by the consumer.

### **3.IT projects and implementations in large Romanian enterprises**

The indubitable fact is that companies are looking to transform and improve their IT processes and operations, which are involving increasing levels of complexity. For example, IT organizations have started by taking a concerted approach to rolling out collaborative or mobile technologies across the enterprise, to managing their portfolio of applications, also progressing to data center consolidation and migration to cloud-based services.

Following the deep budget cuts of the past years and the persistence of the global economic crisis, IT decision-makers have emerged into a world of flat or declining investment, in which demands from the business continue to grow. For many IT organizations, increasing efficiency, adding improved business value, reducing costs and enhancing business-IT alignment have become the permanent core mission.

Despite substantial evidence that IT can transform organizations and the industries in which they operate, management behavior towards IT can differ within an organization and between organizations. The aim of this paper’s research is to find what external, strategic issues managers believe to be important with regard to their organization’s use of IT and their attitude and behavior towards those issues.

In order to underline the way that companies invest in new IT technology projects, this survey was conducted on 25 IT professionals with responsibility for IT in large companies in Romania, in the following industries: computer technologies, telecommunications, financial industry, retail. The survey was conducted via face-to-face interviews, during the first quarter of 2012. All respondents work for companies with more than 1,000 employees.

The interviews of these IT professionals revealed the fact that they have already launched large IT projects, or plan to do so in the future. The findings of this survey of IT decision-makers working for some of Romania’s largest companies confirm the existence of significant IT efforts right across the country.

The survey consisted in the following questions:

1. Have you started or planned IT initiatives/ projects within your company this year?
2. Which aims your IT budget is spent on?
3. What are the main goals of your IT ongoing or future projects?
4. Do decision-makers in your company share an understanding of what’s implied by these IT projects?
5. Please describe the main obstacles to delivering IT programs in your organization.
6. Please describe from “not important”, “quite important”, “important” or “very important” for your company, the followings: adopting public/ private cloud services; data center consolidation; introducing business collaboration technologies; analyzing social media content related to your organization; adopting mobility technologies.
7. Is your company’s strategy aligned with your IT projects and budgets?
8. Have you implemented/ plan to implement IT trainings for your non-IT employees with concern to modern IT technology in communication/ sharing of work and Intranet portals?
9. Do you measure the performance of IT processes by KPI’s (Key performance indicators)?
10. Have your company defined “critical success factors” in IT (applications, infrastructure, people, and information) for your lines of business?

For the first question: “Have you started or planned IT initiatives/ projects within your company this year?” 75% of respondents said that their organisations have launched IT projects. Also, 19% say that future projects will be launched within one-two years. Only 6% of respondents have not IT initiatives. These



responses fully indicate that Romanian companies understand the importance of computer technology in their success and profitability.

For the second question: “Which aims your IT budget is spent on?” respondents said that on average their organization’s IT budget is now devoted to one or more IT initiatives, such as:

- reducing OPEX
- implementation of mobile and collaborative applications
- improving delivery of new IT services
- data center consolidation
- migration to the cloud
- application portfolio management
- implementation of big data technology.

In Romania, inside large companies, IT programs are receiving significant levels of attention. A very high proportion of the organizations for which our respondents work have indicated: application portfolio management (80%), migration to the cloud (55%), better mobility/collaboration across the business (45%) and implementation of big data technology (20%). In order of importance, respondents ranked their objectives as follows: reducing OPEX (89%), improving delivery of new IT services (88%) and data center consolidation (85%).

They also indicated that the economic crisis has brought the need for more improvement projects, even they have been requested by the business side to implement such projects in more innovative ways and with lower budgets.

The main challenge for the companies is the reducing of their innovation budgets. Budgets are easily approved for day-to-day operational tasks, than for large implementations. At the same time, according to a recent study performed by IBM, two thirds of the IT projects are behind the timeline and also they exceed the allocated budgets, at the same time. It clearly seem that the ability to conclude an IT implementation project in time in line with the approved budget is an important task for IT decision makers in the Romanian companies.

For the third question: “What are the main goals of your IT ongoing or future projects?”, respondents said that on average their organization’s IT budget is now devoted to one or more aims, such as: reduce IT operating and maintenance costs – 92%; improve ability to deliver better services to the customers – 81%; empower IT to drive strategic value generation – 78%; consolidate IT landscape – 79%; improve mobility/collaboration across the business – 50%; assure survival of the company – 23%.

The main IT projects are about infrastructure, the data center and core applications. As we can imagine, reducing IT operating and maintenance costs emerges as the most important objective of IT projects. Our respondents weighted the importance of three other objectives very similarly. For example, 81% want to improve IT’s ability to deliver new IT services faster. But 78% also want to empower IT to drive “strategic value generation”. It’s hardly surprising that decision-makers envisage IT projects achieving multiple goals. As we have already seen, IT officials tend to think about IT projects in terms of core infrastructure, applications and data centers. By definition, improving IT activities should result in broad and generalized benefits for both IT and the business.

For the 4<sup>th</sup> question: “Do decision-makers in your company share an understanding of what’s implied by these IT projects?“, respondents indicated a significant level of agreement. The common idea of these answers was that, if IT initiatives can reduce the costs, some or all of the savings can be channeled into new, potentially more strategic, initiatives. Small savings from big maintenance budgets can finance a significant amount of IT-driven innovation. The attractions of this appear evident to the decision-makers we surveyed. Indeed, if we accept that the most significant parts of IT budgets are devoted to keeping the day-to-day business, it is surely notable that Romanian IT decision-makers are devoting also large parts of their IT budgets to IT improvement projects.

For the 5<sup>th</sup> question: “Please describe the main obstacles of launching IT programs in your organization”, the respondents produced, not surprisingly, a long list of obstacles to delivering IT programs. In large organizations, large application portfolios can contain large fields where the nature, beneficiary and usefulness of specific applications are unclear. Therefore, “confusion over current assets and resources” was presented as an important obstacle. The returns on investment from cloud services continue to be debated. However, deciding which initiative to pursue may involve deciding between working on infrastructure (e.g.:

data center consolidation) and rolling out services for the business as a whole (e.g.: expanding business collaboration technologies).

The most frequently mentioned difficulties involved people, both in terms of skills shortages (“staff training”) and cultural obstacles (“resistance to change”, “adoption”, “business management team”, “change management with the users”). In addition, “problems with execution” are an important obstacle standing in the way of IT projects, associated with “finding good people”.

We need to underline that majority of the respondents indicated “the budget” as the primary constraint. In addition, more IT people specified the challenge of increased demand from business units (which in turn restricts the amount of attention and resourcing available for IT projects).

For the 6<sup>th</sup> question: “Please describe from “not important”, “quite important”, “important” or “very important” for your company, the followings projects” the results were truly interesting:

- a) adopting public/ private cloud services; our respondents frequently describe migrating to cloud as “very important” (25%) or “important” (45%). However, as seen at the second question, only 55% said they are considering adopting cloud-based services.
- b) data center consolidation; 85% of respondents are consolidating data center resources and also a larger number of respondents (86%) believe that this is “very important” or “important”. This indicates the clear demand for data center consolidation.
- c) introducing business collaboration technologies; there is no extreme enthusiasm around efforts to roll out business collaboration technologies (45% of organizations are doing this, but only 38% of respondents regard it as “very important” or “important”).
- d) analyzing social media content related to your organization; Even more skepticism surrounds initiatives to analyzing social media content related to the organization and to produce relevant content. Only 18% of respondents regard it as “very important” or “important”).
- e) adopting mobility technologies; All of the 25 respondents interviewed regard adoption of smartphones and tablets as “very important” or “important”, in order to increase staff efficiency. Despite this, are their organizations encouraging the adoption of smartphones and tablets? Only 5% of IT decision-makers we interviewed have started projects regarding mass-using of smartphones and tablets for accessing core business applications, mostly for security reasons. The most common usage of smartphones and tablets are for email.

For the 7<sup>th</sup> question: “Is your company’s strategy aligned with your IT projects and budgets?” the responses were quite surprisingly: Only 35% of the respondents said “yes”, and 30% said “no”. A significant part of the respondents - 35% - indicated that they do not have such information, indicating the board of the company as the main body in establishing and approving the strategy. This painfully indicates that aligning the strategy with the main projects, allocating of technical, human and financial resources to various projects, implementing a BSC (Balance Scorecard) are not in place in Romanian companies.

For the 8<sup>th</sup> question: “Have you implemented/ plan to implement IT trainings for your non-IT employees with concern to modern IT technology in communication/ sharing of work and Intranet portals?” the IT officials responded that their companies have in view such projects within the next 1-3 years, with respect to: technological competencies (28%) and social media skills (25%).

For the 9<sup>th</sup> question: “Do you measure the performance of IT processes by KPI’s (Key performance indicators)?” the responses were as follows: yes – 57%, no – 23%, do not answer – 20%. The respondents also place a relatively high priority on more ambitious (or holistic) objectives, including IT’s ability to drive innovation, generate strategic value and improve business performance. These are measured by metrics like time to market and various SLAs.

For the 10<sup>th</sup> question: “Have your company defined “critical success factors” in IT (applications, infrastructure, people, and information) for your lines of business?” the responses underlined the following facts. IT decisions makers in companies we reviewed are concerned about the business requirements. Many analysis and projects aim to achieve effectiveness and efficiency of business processes. The IT side of the company should assure confidentiality, integrity and availability of business information. Also, the IT systems should be compliance and reliable.

#### 4. Conclusions

As some conclusions need to be drawn, we could underline that IT projects are quite good, having in view that the budgets remain tight and resources have diminished. The result of our survey is positive. This survey confirms that respondents are confident about the likelihood of success of their IT projects. The answers also suggested that for these companies the expectations of IT projects are extended, and predominantly referred to achieving cost reductions and being able to deliver IT services faster. Having the view the above, we could conclude that large, innovative Romanian companies fully understand the impact of the new IT technologies like big data, cloud computing, mobility over the general performance of their organizations.

As a strong conclusion, a good correlation exists between organizations that use knowledge management and have an innovative and constructive organizational culture and those which expect ambitious goals of IT projects, including the ability to drive innovation, generate strategic value and improve business performance. This substantial use of company's resources and projects should be about more than cutting costs. It should ultimately lead to a qualitative change in IT's ability to contribute to the business.

In many organisations, IT is no longer a support function; many CEOs and decision makers include the IT into the strategic center of business. Business decisions are supported with information technology, such as business analytics. IT became the competitive advantage in business, which enable a company to make the correct decisions. As data and the information derived from data became more significant and important, inefficiencies arising from traditional IT systems started to become one of the biggest problems. During the last couple of years, major projects were issued by companies in relation to the number of servers, storage, electricity, and management in IT.

At the same time, to capitalize on knowledge, an organization must combine its knowledge management activities with changes in organizational culture, technologies, and techniques. A number of organizations believe that by focusing exclusively on people, technologies, or techniques, they can manage knowledge. However, that exclusive focus on people, technologies, or techniques does not enable a company to sustain its competitive advantages. It is, rather, the interaction between technology, techniques, and people that allow an organization to manage its knowledge effectively.

#### 5. References

- Armistead, C. (1999) *Knowledge management and process performance*, Journal of Knowledge Management, Vol. 3 Iss: 2, pp.143 – 157
- Awareness Social Marketing Hub (2012) *The State of Social Media Marketing - Top Areas For Social Marketing Investment and Biggest Social Marketing Challenges in 2012*. Available at <http://info.awarenessnetworks.com/The-State-Of-Social-Media-Marketing.html>
- Bhatt, G.D. (2001) *Knowledge management in organizations: examining the interaction between technologies, techniques, and people*, Journal of Knowledge Management, Vol. 5 Iss: 1, pp.68 – 75
- Chan, T.Y.D. (2002) *Knowledge Management Company (XEROX)*, Capitalizing on Knowledge Workers. Tokyo. APO
- Coincross, F. (1997) *The Death of Distance: How the Communications Revolution Will Change Our Lives*, 2nd edition, Boston: Harvard Business School Press
- Davenport, T.; Prusak, I. (1998) *Working Knowledge: How Organisations Manage, What They Know*, Boston: Harvard Business School Press
- Drucker, P. (1999) *Knowledge Management*, California Management Review, vol.41, nr.2, 1999
- Facebook News. Available at: <http://newsroom.fb.com/content/default.aspx?NewsAreaId=22>
- Handy, C. (1999) *The Elephant and the Flea of a Reluctant Capitalist*, Boston: Harvard Business School
- IBM Study (2011) *IBM Global CMO Study*. Available at <http://www-935.ibm.com/services/us/cmo/cmstudy2011/cmo-registration.html>
- IBM Study (2007) *Transition and Transformation. Transitioning services with minimal risk*. Available at: [http://www-935.ibm.com/services/au/igs/pdf/tt\\_booklet\\_final\\_web.pdf](http://www-935.ibm.com/services/au/igs/pdf/tt_booklet_final_web.pdf)

- IDG White Paper (2012) *IT Transformation: Planning, Execution and Objectives in Europe*. Available at: [http://www.idgconnect.com/view\\_abstract/8795/it-transformation-planning-execution-objectives-europe](http://www.idgconnect.com/view_abstract/8795/it-transformation-planning-execution-objectives-europe)
- Nicolescu, O.; Nicolescu, C. (2011) *Knowledge-based organization and management*, Bucharest: Pro Universitaria
- Ulubil, S. (2012) *Innovative ideas with IBM PureSystems to regain control of IT*. Available at: <http://expertintegratedsystemsblog.com/index.php/2012/04/innovative-ideas-with-ibm-puresystems-to-regain-control-of-it/>
- Zikopoulos, P.; Eaton, C.; Deusch, T.; Deroos, D.; Lapis, G. (2012) *Understanding Big Data. Analytics for Enterprises Class, Hadoop and Streaming Data*. USA: McGraw-Hill. Available at <http://public.dhe.ibm.com/common/ssi/ecm/en/iml14297usen/IML14297USEN.PDF>

# ECONOMICAL SYSTEMS – NEW TRENDS FOR APPLICATION INTEROPERABILITY

**COJOCARU Silviu**

*PhD, Associate Professor, Faculty of Business and Administration, University of Bucharest,  
silviu.cojocaru@student.faa.ro*

**COJOCARU Camelia**

*PhD, Associate Professor, Faculty of Business and Administration, University of Bucharest,  
camelia.cojocaru@student.faa.ro*

**Abstract:** *Web Services and Service Oriented Architecture (SOA) registered an important increase in the past years. The aim of the Paper is to analyse the manner in which these technologies are used by the local business and how they can lead to the improvement of processes within enterprises. The paper includes the results of a study dedicated to determine the level of usage of these technologies in Romanian companies.*

**Key words:** SOA, interoperability, system integration, web services

**JEL Classification:** O33-Technological Change: Choices and Consequences; Diffusion Processes

## 1. Introduction

The Internet's development has fundamentally affected the architecture of informatics management systems, causing substantial changes in the way that this category of solutions is distributed and reached. This considering, one could say that gaining access to economical applications through a simple Web browser came as a necessity in a world that is characterized by dynamism and by the globalization of economical phenomena [Aamodt, 1996]. So, in the 90s, the main trend in application development was offering support and accessibility – for computers that had an internet connection – to a wide range of informational resources (databases and more) and applications. The testimony for this is the multitude of languages and technologies that allow the easy development of database exploitation applications through a simple Web browser. This is why scripting languages that run on servers (ASP and its follower ASP.Net; PHP; JSP etc.), are now mature technologies, that offer the possibility of developing complex Web technologies. This technologies' existence has caused changes in informational necessities and in the equipments users need. Nowadays internet connections are available not only to computers, but also to a multitude of equipment such as mobile phones and other hand-held devices. Considering these necessities, creating a universal language became a dire need [McAfee,2005]. XML is the answer to these requests, and is a new stage in the informational age, easing the data exchange between different equipments. Beside the possibility of transferring data onto these heterogeneous platforms there was also the need of creating a way of communication between them. The answer to these priorities is the Web Services technology, which is now the most efficient way of cross-application Internet communication.

## 2. Literature review

Web services are a standardized way of distributing Internet applications and fundamental technologies that are at the basis of this network. Also, web services offer the possibility of interconnecting a wide range of applications, which are available on different platforms and in several worldwide locations. One could say that Web technologies became an Esperanto of application communication, as the new technology opens the gate towards a new age dominated by intelligent applications that make smart decisions and Internet searches, as a basis for well-balanced decisions [Agosta,2000].

Therefore, supposing that we wish to build an expert system that manages a share portfolio, we need to keep in mind that such a system cannot function without constant market quotation updates. Plus, making an optimal decision for selling or buying is a matter of minutes, and this highly influences the efficiency of the system. If a decade ago this system was very complicated due to the lack of efficient means of cross application communication, after the development of Web applications, it became much easier. One would have to develop the classic portfolio management expert and then the link to the outside world would be this

paper's technology. The data containing the quotations will be transmitted via Internet through a web service developed by the stock market. By using the functions and procedures exposed by this Web services, the right parameters can be transmitted, and the stock market informational system will return the requested information. Plus, all of the exposed functions of the stock market system will become a part of the developed applications, and will be called for as similarly developed procedures. You will be able to schedule the automatic checking of stock market quotations and the permanent update of the local database. Things could move even further, with the possibility of inclosing a Web service for the brokerage society that would allow the expert system to not only makes the optimal choice but to implement the decision taken. This example shows how optimal communication automation actually works and how human intervention becomes unnecessary. This has a decisive role in eliminating intentional and non-intentional human errors from the entire process (Jacobides,2000).

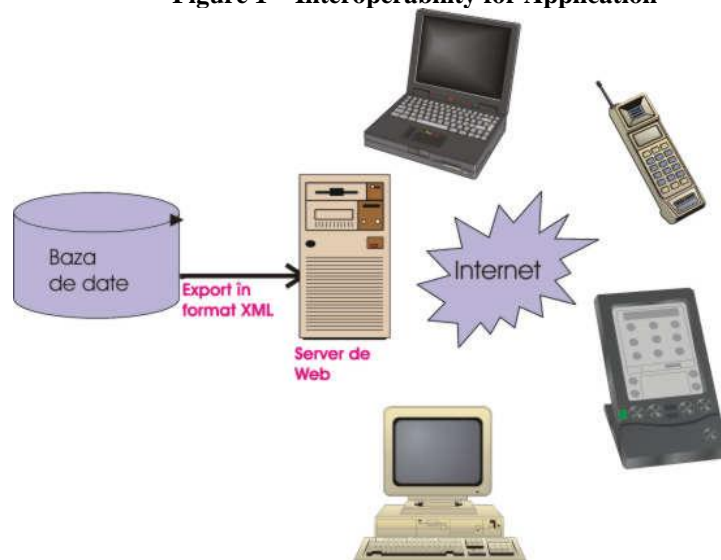
### 3. Service Oriented Architecture

XML or eXtended Markup Language is the basis for all of the elements behind the Web Services technologies. Considering the independence from the platform, XML is the engine behind internet data transfers, and the fundament of Web services. XML is in fact "the brother" of HTML (HyperText Markup Language), as the two have a series of resemblances. But there are some distinctions that cannot be overseen. First of all, they have a common origin - SGML (Standard Generalized Markup Language), a general language that, through mechanisms similar to those of classic grammar, offers users the possibility of electronically structuring their data [Airinei,1995]. So, practically, HTML uses a set of tags which fine the way that the information will be displayed in the browser. The set of HTML tags is limited and not

Customizable, and is generated through SGML technologies. Under these conditions, there is no way for you to customize you set of tags, and this lack of flexibility is an important restraint in some cases. So, with applications that use databases, using HTML is improper for transmitting data.

Unlike HTML, XML offers users the possibility of building their own set of tags which can be used for formatting the document. This offers a high level of flexibility, as this element is necessary in defining specialized electronic documents. Normally, you may wonder: if a general language existed - SGML, why was there a need for XML? The answer is simple – by its nature, SGML is a highly complex language, and is very hard to use on a large scale, so a simplifies system was created in the form of XML (Alter 2000,2002).

**Figure 1 – Interoperability for Application**



Web services are built on fundamental Internet technologies. So, for transmitting Internet technologies, these solutions use standard HTTP protocol (HyperText Transfer Protocol) and the transferred data is cased in XML files. Considering that both technologies are basic Internet elements, they will ensure the accessibility of the applications on any available platform.

Unlike Web services, its predecessors had the main disadvantage of not offering such a wide portability range. Therefore, DCOM and CORBA were not accepted by all IT&C solution providers, and this would determine limits in their usage. Considering the heterogeneity of the Internet, a technology needs to be supported by the widest possible range of users for it to be considered a universal Internet technology [5]. Plus, DCOM and CORBA technologies use binary files for transferring data and communicating between applications, and this contributes to a lower portability. Unlike these, Web services use XML for data transfer, which consist in simple text files, ensuring a maximum range of portability. Web services use port 80 which is the standard assignation for the HTTP protocol. In comparison, the 2 alternative technologies use their own protocols for transmitting data, and this determines the necessity for additional ports on the application server. In a world that is dominated by the need for a higher security level, this disadvantage of the CORBA and DCOM technologies could have a negative impact over the entire

In conclusion, one could consider that the widespread of Web technologies in the past years comes from their compatibility with the two generally accepted technologies - HTTP and XML. Considering there advantages, the specialists from IDC (a company for surveying and analyzing the IT&C environment) consider that Web services will become the fundamental way of application distribution, surpassing all other alternative ways of application distribution (Damsgaard, 2000).

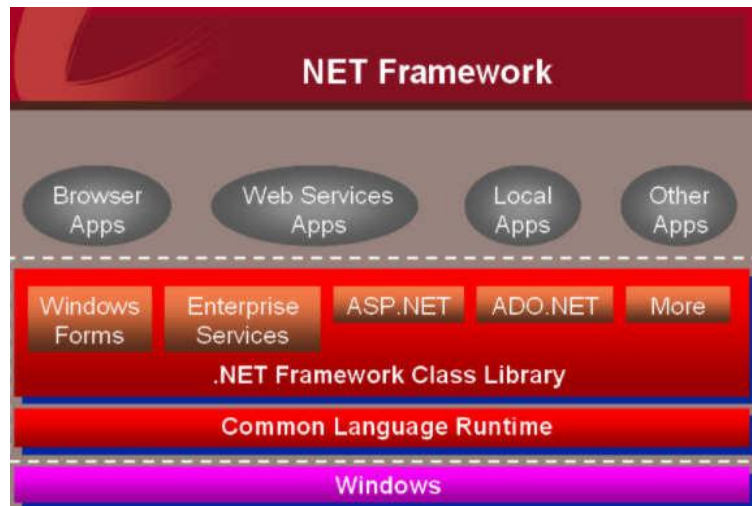
Web services are a great part of the most important application development instruments. Microsoft, Oracle or IBM –not necessarily in this order – are the main promoters of this way of application distribution, integrating advanced development instruments for serving these purposes (Forrester Research,2009).

This paper has chosen Microsoft's development environment - Visual Studio.Net. I have made this choice considering its advantages as well as its wide spread among developers in our country and abroad.

The .Net version of Visual Studio, that was launched in the beginning of the year, offers an efficient way of development and of integrating Web services into one's own applications. Considering that XML stands at the basis of these technologies, most available instruments are now using this language. We must add that the ADO.NET (ActiveX Data Object) object collection, used in developing database applications, is based exclusively on this language (Iyer,2003). Also, the new version proposes a common software framework (.Net Framework) that offers the possibility of accessing the libraries similarly by any application that has been written in a language that is compatible with this platform. Therefore, the environment shows a common application development framework, and the common element is CLR (Common Language Runtime). CLR translates any application that has been written in a language that is compatible with the technology into an intermediate language – Microsoft Intermediate Language (IL). The applications that are available in this intermediate method can be transferred and executed onto the desired platform. This platform currently offers 21 application development languages, starting with the classic Cobol and ending with the modern C#. Our example used Visual Basic.Net. (Löwer,1995) Web services will be provided using ASP.Net technology (Active Server Page). ASP is one of the main Web technologies, offering the development of dynamic web pages with database support. The latest version (ASP.Net), offers as a main novelty the possibility of creating and distributing web services. Plus, another set of facilities is included, and here are the most important ones:

- The possibility of separating the main code of the application from the static representation code of the pages that has been written in HTML;
- ASP.Net applications can be created in one of the 21 available languages;
- ASP.Net offers a complete set of server run controls, and this contributes to a better application interface.

**Figure 2 .NET Framework Architecture**



#### 4. Research

The research was realised for 38 companies that are between the first 200 from Romania considering the 2010 turnover and its main purpose was to identify how the interoperability technologies were implemented. The enterprises come from different fields, such as financial-banking, telecommunications, retail and industry.

The study was developed during December 2011-February 2012 and included a set of questions, from which we mention the most important.

1. Did you implement / Do you plan to implement a technological solution dedicated to integrated informatics system interoperability within the enterprise?

65% of the companies implement solutions for the interoperability of informatics systems, and the rest of 35% plan to implement these solutions within one year.

2. Did the interoperability technologies contribute to the improvements of processes within the enterprise?

Those companies that use the interoperability systems have come to the conclusion that interoperability technologies lead a major role for the improvements of processes. 95% of the companies have registered increased efficiency. More than 60% of the companies have registered an increased performance within the company, as well as a faster adherence to certain imposed standards.

3. Do you use integrated informatic systems with business partners?

Although most of the companies apply informatic systems destined to the interoperability of internal informatic systems, the integration with the business partners is extremely reduced. Only 6% of the companies use components that allow the interoperability of their systems with their business partners'. The main reason for this low integration is determined by the lack of national or industry standards.

4. Are the systems within the company integrated with those of public institutes?

Only 1% of the participants have informatic systems in integration with those of the public institutions (such as city halls, fiscal administration, etc.). The main reason for this situation is the lack of national standards for the systems integration with different public authorities. The lack of these standards and also the frequent changes are also the reason for the low level of implementation.

5. Which are the integrated systems categories?

The most frequent system integrations are related to web-based systems and different e-business categories (business-to-business or business-to-customer) with ERP systems (Enterprise Resource Planning) implemented by enterprises. In the financial-banking department, the integration is between the Internet Banking and core-banking systems.



## 5. Conclusions and implications

We are living in a world that is dominated by the need for interoperability between different informational systems running on different platforms. Under these circumstances, Web services are the technology able of efficiently solving this problem. The simplicity of Web services (simplicity that results from the compatibility with basic Internet technologies) ensures the universal acceptance of this solution as a way of communicating between applications. Plus, the relatively simple way of developing these elements will undoubtedly lead to their becoming widespread. Visual Studio.Net, by its integrated development instruments, became one of the main solutions serving this purpose.

## 6. References

5. Aamodt, A., and Plaza, E. (1996). Case-Based Reasoning: Foundational Issues, Methodological Variations and System Approaches
6. Agosta, L. (2000). "From data to insight: the critical path to data mining, a short history of data mining". PC/AI, Sept/Oct, 16-21.
7. Airinei, D. Problemes concernant la generalisation des systems experts dans les activites financieres et comptables, The Proceedings of the 2-nd International Symposium of EconomiInformatics, May, 1995.
8. Alexander J., Hollis B. (2002) - Developing Web applications with Visual Basic .NET and ASP.NET, John Wiley and Sons.
9. Alter, S. (2000) "A taxonomy of Decision SupportSystems". Sloan Management Review.
10. Alter, S. (2002) Decision Support Systems; Current Practices and Continuing Challenges. Addison - Wesley, Reading MA.
11. Damsgaard, J. and True, D. (2000). Binary Trading Relations and the Limits of Edi Standards: The Procrustean Bed of Standards. European Journal of Information Systems, 9 (3), 173-188.
12. Forrester Research Inc. 2009."The Value of a Comprehensive Integration Solution." Forrester Research Inc.
13. Iyer, B., Freedman, J., Gaynor, M. and Wyner, G. (2003). Web Services: Enabling Dynamic Business Networks. Communications of the AIS, 11, 525-554.
14. Jacobides, M.G. and Billinger, S. (2006). Designing the Boundaries of the Firm: From "Make, Buy, or Ally" to the Dynamic Benefits of Vertical Architecture. Organization Science, 17 (2), 249-261.
15. Löwer, U.M. (2005). Interorganisational Standards: Managing Web Services Specifications for Flexible Supply Chains. Physica-Verlag, Heidelberg.
16. McAfee, A. (2005). Will Web Services Really Transform Collaboration? MIT Sloan Management Review, 46 (2), 78-84.

# GLOBALIZATION AND ITS CONSEQUENCES TO THE ECONOMIC ORGANIZATIONS

**CONSTANTINESCU Răzvan**

*Automotive Service Manager/Ph.D. student, Sebastian SRL, Bucharest, Romania,  
razvan.constantinescu@sebastian.ro*

**Abstract:** *Performing economic activities on a global market is no longer hypothetical for numerous organizations, but nowadays it represents a reality fact. In order to gain the ability to perform globally, the economic organization's management has to adopt decisions which should ensure the availability of long term resources. Therefore, the organization's main goal has to be the achievement of sustained success. In this paper there is presented an absolutely original conceptual model for the management system which should be implemented by the economic organizations aiming to achieve sustained success in order to be able to face the globalization challenges.*

**Key words:** *sustained success, shareholders, globalization, management system*

**JEL classification:** M10

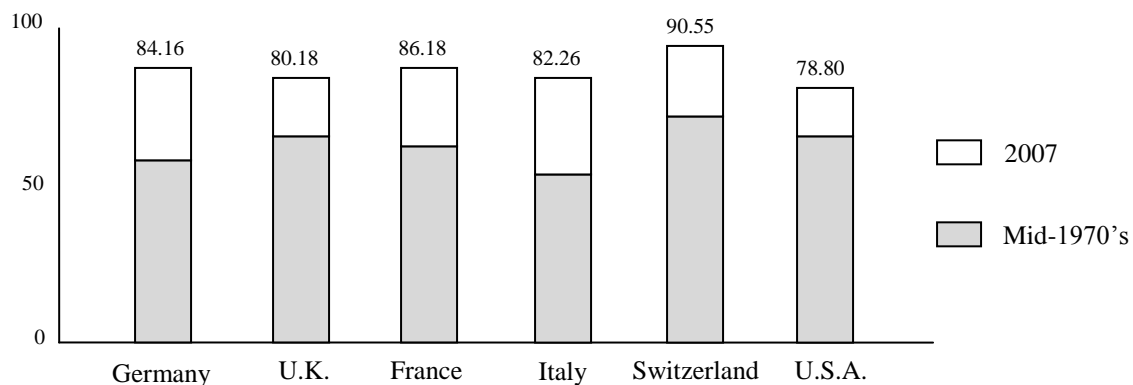
## 1. Introduction

### 1.1. Globalization – A World without Borders

Business, just like crime, has become a unified, global field. Globalization refers to the extent to which trade and investments, information, social and cultural ideas, and political cooperation flow between countries. One result is that countries, businesses and people become increasingly interdependent.

Globalization has been on the rise since the 1970's and most industrialized nations show a high degree of globalization today. The KOF Swiss Economic Institute measures aspects of globalization and ranks countries on a globalization index. Figure 1 shows how selected countries ranked on the 2010 index, based on the year 2007, compared to their degree of globalization in the mid-1970's.

**Figure 1: Ranking of 6 countries on the globalization index.**



Source: (Daft Richard 2012)

The difficulties and risks of a borderless world are matched by benefits and opportunities. Even small companies can locate different parts of the organization wherever it makes the most business sense. Virtual connections enable close, rapid coordination among people working in different parts of the world, so it is no longer necessary to keep everything in one place. Organizations can go wherever they want to find the lowest costs or the best brain power.

When managers think globally, the whole world is a source of ideas, resources, information, employees and customers. Managers can move their companies into the international arena on a variety of

levels and organizations can be thought of as passing through four distinct stages as they become increasingly global. These stages are illustrated in table 1.

**Table 1: The four stages of globalization.**

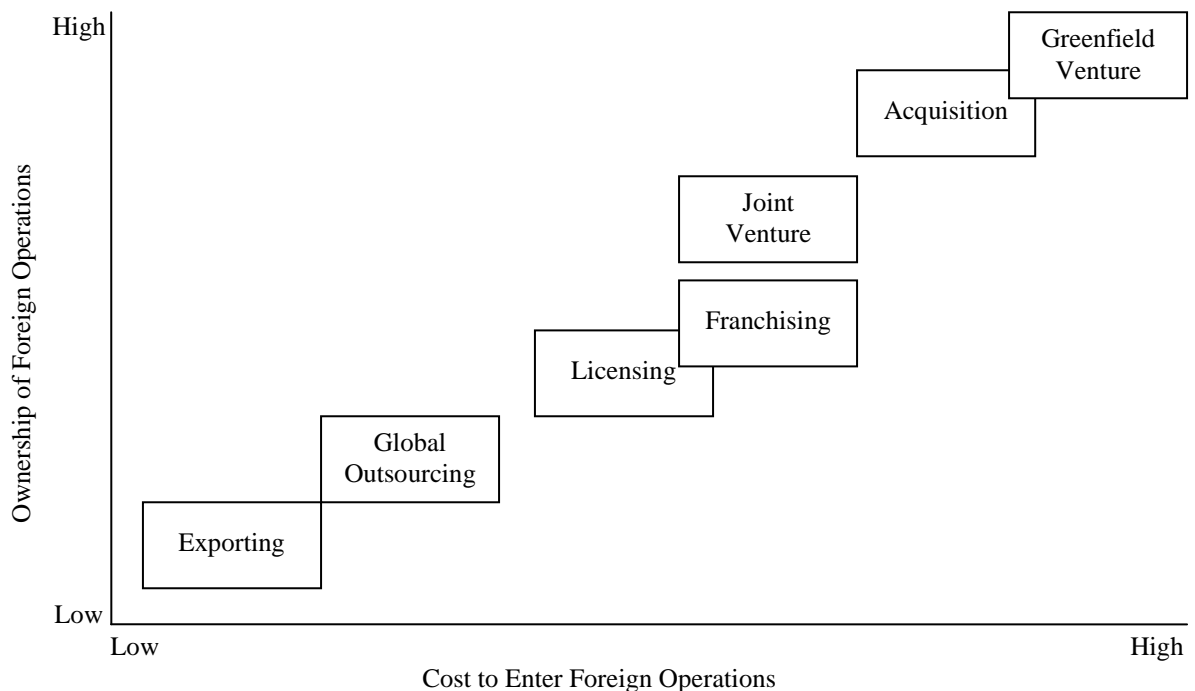
	<b>1. Domestic</b>	<b>2. International</b>	<b>3. Multinational</b>	<b>4. Global</b>
<b>Strategic Orientation</b>	Domestically oriented	Export-oriented, multidomestic	Multinational	Global
<b>Stage of Development</b>	Initial foreign involvement	Competitive positioning	Explosion of international operations	Global
<b>Cultural Sensitivity</b>	Of little importance	Very important	Somewhat important	Critically important
<b>Manager Assumptions</b>	“One best way”	“Many good ways”	“The least-cost way”	“Many good ways”

Source: (Daft Richard 2012)

### 1.2. Stages and Strategies for Getting Started Internationally

Organizations have a couple of ways to become involved internationally. One is to seek cheaper resources such as materials and labor offshore, which is called offshoring or global outsourcing. Another is to develop markets for finished products or service outside their home countries, which may include exporting, licensing and direct investing. These are called market entry strategies because they represent alternative ways to sell products and services in foreign markets. Figure 2 shows the strategies companies can use to engage in the international arena, either to acquire resources or to enter new markets.

**Figure 2: Strategies for Entering the International Arena**



#### *Exporting*

With exporting, the company maintains its production facilities within the home country and transfers its products for sale in foreign ones. Exporting enables a company to market its products in other countries at modest resource cost and with limited risk. Exporting does entail numerous problems based on

physical distances, government regulations, foreign currencies and cultural differences, but it is less expensive than committing the firm's own capital to build plants in host countries.

A form of exporting to less developed countries is called countertrade, which refers to the barter of products for products rather than the sale of products for currency, because these countries may often be short of foreign currencies. Economists estimate that about 20 to 25 percent of world trade is countertrade.

### ***Outsourcing***

Global outsourcing, also called offshoring, means engaging in the international division of labor so that work activities can be done in countries with the cheapest sources of labor and supplies. Millions of low-level jobs have been outsourced to low-wage countries in recent years and the Internet and plunging telecommunications costs are enabling companies to outsource higher-level work as well, such as software development, accounting or medical services.

### ***Licensing***

With licensing, a corporation (the licensor) in one country makes certain resources available to companies in another country (the licensee). These resources include technology, managerial skills and patent or trademark rights. They enable the licensee to produce and market a product or service similar to what the licensor has been producing. Licensing offers a business firm relatively easy access to international markets at low cost, but it limits the company's participation in and control over the development of those markets.

One special form of licensing is ***franchising***, which occurs when a franchisee buys a complete package of materials and services, including equipment, products, product ingredients, trademark and trade name rights, managerial advice and a standardized operating system. Whereas with licensing, a licensee generally keeps its own company name, autonomy and operating systems, a franchisee takes the franchisor's name and systems.

### ***Direct Investing***

A higher level of involvement in international trade is direct investment in facilities in a foreign country. Direct investing means that the company is involved in managing the productive assets, which distinguishes it from other entry strategies that permit less managerial control.

Currently, the most popular type of direct investment is to engage in strategic alliances and partnerships. In a ***joint venture***, a company shares costs and risks with another firm, typically in the host country, to develop new products, build a manufacturing facility or set up a sales and distribution network. A partnership is often the fastest, cheapest and least risky way to get into the global game. In addition to joint ventures, the complexity of today's business environment is causing managers at many companies to develop alliance networks, which are collections of partnerships with various other firms, often across international boundaries. These alliance networks help companies to reduce costs, enhance their competitive position in the international environment and increase knowledge on a global scale.

The other choice is to have a wholly owned foreign affiliate, over which the investor has complete control. Direct ***acquisition*** of an affiliate may provide cost savings over exporting by shortening distribution channels and reducing storage and transportation costs. Local managers also have a better understating of economic, cultural and political conditions.

The most costly and risky direct investment is called a ***greenfield venture***, which means a company builds a subsidiary from scratch in a foreign country. The advantage is that the subsidiary is exactly what the investor wants and it has the potential to be highly profitable. The disadvantage is that the investor has to acquire all market knowledge, materials, people and know-how in a different culture and mistakes are possible to occur.

## **1.3. Premises for operating globally**

Transposing the above presented concepts upon the both positive and negative aspects of several economic organizations' experience in Romania, the outcome is that, in order to ensure and efficiently dispose of the resources required to operate on a global market, a company has to achieve sustained success by developing and implementing an adequate management system.

Since the 20th century's last decades, the economic organizations' orientation towards satisfying the requirements and expectations of their shareholders, including all the parties interested in their results, represents the policy needed to ensure a profitable existence. Therefore, theoreticians and practitioners had developed different versions of the management system which may be adequate to this goal. International standards had been created and competitions had been organized in order to stimulate the organizations to implement the management system which would provide results at the "business excellence" level.

## **2. A New Orientation for the Economic Organizations' Management**

The economic events during the last two decades in the economically developed countries determine the necessity of a new orientation for economic organizations' management: towards sustained development.

The necessity for the economic organizations to adopt such an orientation is also demonstrated by the recent publication of several international documents' new versions – i.e. ISO standards – and by changes in the European organizations' philosophy – i.e. The European Foundation for Quality Management (EFQM). Concretely, these are the major changes which occurred in the ISO 9004 standard in the year 2009 and also the new 2010 EFQM excellence model.

Concerning the ISO 9004 standard, the new orientation is obvious even from its title. Whether the 2000 version was entitled "Guidelines for performance improvements", the 2009 version changes its title to "Managing for the sustained success of an organization. A quality management approach".

Nevertheless, the EFQM Excellence Model 2010 obviously orientates the economic organizations towards a management system adequate to sustained development.

### **2.1. ISO 9004:2009 recommendations**

Even since the 1986 first version of the ISO 9000 series standards referring to "the quality system", the ISO 9004 standard contained recommendations for organizations which were implementing the quality system and were setting its improvement as their next objective.

After the ISO 9000 series major revision in 2000, a unique model for "the quality management system" had been maintained and the recommendations for the organization's results improvement had been still presented in ISO 9004.

Since its 2009 radical revision, ISO 9004 has become a guide for "Managing for the sustained success of an organization. A quality management approach". The standard's transformation was needed because after a major economic crisis an economic organization's stability may be restored only by continuously and systematically improving its overall results. The argument which sustains this idea also consists of the fact that, essentially, the ISO 9004:2009 recommendations imply the existence of a quality management system developed on the strategic management concepts basis.

Among the recommendations which should be fulfilled according to the ISO 9004:2009 standard there may exemplified the following ones:

- to identify all the interested parties and their requirements and expectations;
- to determine the results the organization should obtain in order to achieve the interested parties' long term satisfaction;
- to anticipate the resources, including the competences and technologies, which are needed to achieve the established objectives;
- to adopt decisions referring to the organizational changes needed to ensure an adequate background for the operating processes;
- to develop the policies which are needed to ensure that the interested parties would accept and sustain the organization's vision and values;
- to establish organizational objectives considering both the interested parties' requirements and expectations and the results obtained by monitoring the external environment and by evaluating the organization's strategic capability;
- to develop and implement continuous improvement processes, including benchmarking studies, learning and innovation;
- to identify and evaluate risks.

Although there have been briefly mentioned only the orientations which result from the ISO 9004:2009 main recommendations, one may conclude that the management system requested for an organization's sustained success has to ensure the following processes:

- establishing objectives and strategies needed to satisfy the interested parties' requirements;
- monitoring the external environment and the organization's capability;
- ensuring feed-back for continuous improvement, innovation and necessary organizational changes identification.

## 2.2. EFQM Excellence Model 2010

The European Quality Award (EQA) was established in 1991 by the European Foundation for Quality (EFQM). Its main objective was to encourage and stimulate organizations to implement a quality management system which might orientate them towards total quality, in order to achieve performance that satisfied all the interested parties' requirements.

After minor changes in the year 2003, the EFQM Excellence Model's 2010 version is significantly improved as the identification of possibilities to achieve excellence level results is done considering the present economic conditions.

The changes revealed in the EFQM Excellence Model 2010 refer to:

- a. The Fundamental Concepts
- b. The Model itself
- c. the RADAR elements for Results and Enables

### a. The Fundamental Concepts

This approach used the Fundamental Concepts as the basis and reference for the rest. It was now the first time that **a fully consistent and direct link** was made between each of the eight concepts and each of the 32 criterion parties. In table 2 there are presented the key changes of several fundamental concepts.

**Table 2: Key Changes of EFQM Excellence Model Fundamental Concepts**

2010 version	2003 version	Key change
Achieving Balanced Results	Results Orientation	Focus is now on developing the key set of results required to monitor progress against the vision, mission and strategy
Adding Value for Customers	Customer Focus	Focus is now on clearly defining and communicating the value proposition and actively engaging customers in the product/service design process
Succeeding through People	People Development and Involvement	The focus is now on creating a balance between the strategic needs of the organization and the personal expectations and aspirations of the people to gain their commitment and engagement

### b. The Model itself

The model's modification mainly consists of:

- changes of the criteria's share in calculating the aggregate score, both for the determining factors and for the results;
- changes of the sub criteria the valuation is based upon.

### c. The RADAR elements for Results and Enables

Here a big change was made for the "scope" attributes used to assess the performance of the results or "footprint" of an organization. The set of attributes for assessing approaches in the enabler criteria were

refined with aspects like efficiency, creativity and timelines being integrated into the well known triplet of “approach”, “deployment” and “assessment and review”.

Although there have been presented only several examples, they are relevant to demonstrate that the EFQM Excellence Model 2010 orientates the organizations towards sustained development.

### 3. The Sustainable Development Triangle – A New Conceptual Model for the Economic Organizations’ Management System

The achievement of sustained results which are necessary to the organization in order to satisfy all the interested parties’ requirements certainly implies its long term development and even the achievement of the excellence stage.

The achievement of sustained success by achieving the excellence stage as a result of the orientation towards “total quality” is possible by implementing a complex system of management processes. There is needed a management system which enables both co-ordination and the achievement of synergy between the implemented processes, in order to:

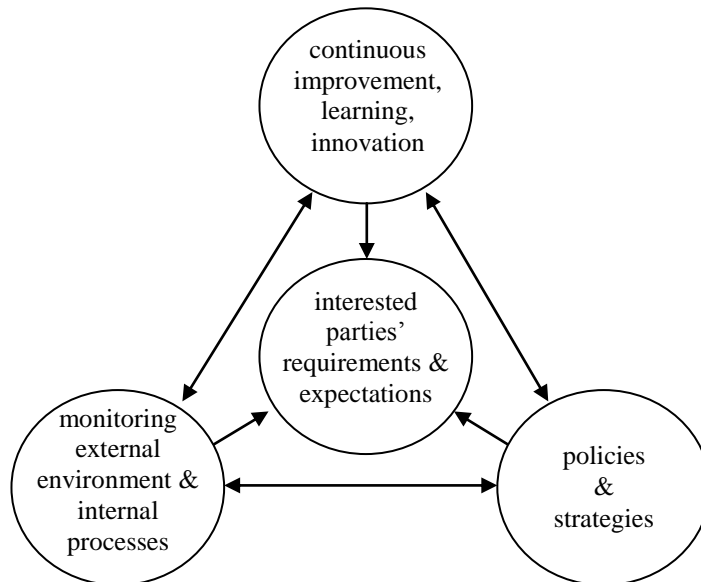
- permanently adjust policies and strategies to the conditions of the organization’s external environment;
- monitor the organization’s external environment and internal processes;
- continuously improve the organization’s processes, learn out of own experience and innovate.

This management system’s conceptual model, called “The Sustainable Development Triangle”, is presented in figure 3.

Each component of the triangle, representing a category of management processes, is essential itself and is also important by its connections with the other ones.

In the following section there are presented the connections of one of the processes groups with the other ones: “Monitoring the external environment and the internal processes”. This triangle’s component emphasizes the necessity of a whole ensemble of strategic management processes. By “monitoring the external environment” information are collected which allow the organization to forecast the general environment’s opportunities and threats, the competition environment’s success critical factors, the interested parties’ requirements and expectations. Objectives are set and different versions of organizational and competition strategies are conceived based on these information.

**Figure 3: The Sustainable Development Triangle**



By “monitoring the internal processes” there are controlled the results which reflect the premises to achieve the organization’s long term objectives. There is necessary to monitor a group of key performance indicators – balanced scorecard. The balanced scorecard combines financial measures that tell the results of actions already taken with operational measures on customer satisfaction, internal processes and the

organization's innovation and improvement activities – the drivers of future financial performance. Management develops objectives in each of the following four areas:

- Financial: How do we appear to shareholders?
- Customer: How do customers view us?
- Internal Business Perspective: What must we excel at?
- Innovation and Learning: Can we continue to improve and create value?

At the same time, based on the results of the monitoring collected information analysis, top management adopts decisions referring to the necessity of:

- maintaining or changing the policy and/or strategies;
- making organizational changes;
- reconsidering decisions concerning resources;
- developing and implementing improvement processes.

This new model's presentation has been started by exemplifying the influence the external and internal monitoring results exercise over the other two management processes groups because the assessment of the external environment and the organization's capability provides the essential information in order to adopt decisions referring to policies and strategies.

However, in order to implement certain organizational or competition strategies there may be necessary to:

- improve management or operational processes;
- innovate operational processes;
- improve monitoring processes regarding the directions the external environment's analysis is focused to or the methods used for the internal monitoring;
- reconsider the organization's self evaluation indicators and/or frequency.

Therefore, the previous examples referring to the connections between the three management processes groups demonstrate that the Sustained Development Triangle emphasizes the necessity to develop and implement a management system which ensures the achievement of long term objectives in all the organization's compartments in order to satisfy the interested parties' requirements. That system is based on the Total Quality Management (TQM) principles and it orientates the economic organization's management to adopt decisions necessary to develop a Strategic Management process.

#### **4. Conclusions**

Although there has been presented only one of the components of The Sustainable Development Triangle and its interferences with the other three ones, it clearly demonstrates the advantages that such a complex management system may offer to an organization which aims to sustained success.

The management system's conceptual model which is introduced in this paper is mainly the result of TQM development using strategic management specific principles and processes. This absolutely original model is the result of the fundamental and practical research performed by the author.

#### **5. References**

- Albrecht, K. and Zemke, R. (1990) *The Service Advantage*, BPI Irwin
- Constantinescu, Doina (2005) *Managementul Calitatii, second edition*, Printech
- Constantinescu, R. and Constantinescu, D. *A Management System for Sustained Success*, The International Conference of Management and Industrial Engineering (ICMIE) 2011
- Daft, Richard (2012) *New Era of Management, tenth edition*, South Western – Cengage Learning
- Hradesky, J. (1995) *Total Quality Management Handbook*, McGraw Hill
- Wheelen, Th. and Hungar, D. (2000) *Strategic Management, seventh edition*, Prentice Hall
- ISO 9004:2009 – *Managing for the sustained success of an organization. A quality management approach*.
- The EFQM Excellence Model 2010



# PURCHASE STRATEGY – NECESSITY AND CONSTRAINTS

*CRIȘAN Silviu*

*Professor PhD., Faculty of Economic Sciences, “Lucian Blaga” University of Sibiu,  
Romania, email: [crisan\\_s@yahoo.com](mailto:crisan_s@yahoo.com)*

**Abstract:** *Aiming the insurance of natural resources, the purchase or supply represents one of the essential activities for any company. The operation of a company, as well as the general efficiency of the company relies on the purchase manner. Through its importance and its status of permanent interference with the environment, the purchase is a highly complex and difficult activity, even a high risk activity. This paper attempts to illustrate the actions to be taken, to insure, within the manifestation of an economic and financial crisis from the purchase point of view, the undisturbed operation of a company.*

**Key words:** purchase, company, market, purchase strategy, economic and financial crisis.

**JEL classification:** M21

## **1. Introduction**

The economic strategy, within which the purchase strategy has an important and well established place, is assessed as a construction which takes into consideration the requirements of the market, the objectives established being mainly economic. In order to fulfill its objectives within efficiency conditions, the economic strategy uses as action manner the same means, namely economic.

Currently, regardless of the level where it is designed and made operational, the economic strategy currently finds itself within an objective and significant reconsideration process, in terms of a company, field of activity, area or country.

Even if it takes into consideration the absolute novelties or just modifications, more or less important, currently, but also in the future, the means of approach of the economic strategy is imposed by two causes, which have to be considered at their actual influence power, which is very high.

First of all, we are talking about the actual evolution context of the national economies and of the world economy, evolution within which the negative effects of the financial and economic crisis have not significantly reduced as intensity and influence parameter. Secondly, we are talking about the sustainable development, orientation and option, both, for a long period of time, insistently claimed by the overall human society.

## **2. Economic strategy and sustainable development**

Despite the fact that the reconsideration process of the economic strategy is a general one, where the claimed and foreseen changes will be large and intense, the importance of the economic strategy will not be reduced. On the contrary, the necessity and importance of the economic strategy will increase. And this because, from the point of view of the consequences, the economic strategy conceived from the point of view of the sustainable development will exceed by far and with more implications the economic field and more obviously, by influencing in a determinant way the social life in all its structures.

Significantly advancing the perimeter of certain theoretical debates, becoming a highly complex and important issue for any company, the sustainable development takes into consideration, among others, the adoption of the economic strategies which, through the activities generated, would insure the current satisfaction, both of their personal needs, and the various interests of the entities with which the company develops business relationships or other type of relationships (shareholders, customers, suppliers, credit institutions, local communities, institutions of the local and central power), while they have to insure not only the protection, but also the development and perpetuation of the natural and human resources necessary to the future generations.

Only to the extent where, on one hand, we will think and act within the spirit of the sustainable development, and on the other hand, we objectively and responsibly assess the importance of the material and financial resources consumed within any labor process developed within a company, we will be able to create

the premises to avoid both the excessive usage of human resources and a reckless consumption and even a degradation of human resources, which could be not only extremely severe, but also irremediable.

Obviously, the approach from the perspective of sustainable development's necessity and obligation cannot be limited at the level of a company, group of companies, economic field or national economy.

In order not to affect the capacity of the future generations to promote and develop their businesses in view of satisfying their own needs, the sustainable development has to become "*the omnipresent philosophy to which each participant within the world economy (including the consumers and the government) have to subscribe*".

Nowadays, the concern of various companies with national or multinational representation regarding a concrete harmonization between the economic interests, the strategic approach and the environmental protection issue, which includes "*all the spiritual, intellectual and physical activities insuring the perpetuation of the human species, its mental and physical health, respectively a decent life on Earth*", definitely became one of the highest challenges of the human society.

Due to the fact that there still is a significant increase of the material and energy flows, valid not only for the strong economically developed countries, but also for certain emerging countries, the issue which has to be solved, not only fast enough but also in-depth, is to find certain means through which the economic and social progress would not be so strongly conditioned by the significant increase of the consumption of material resources (taken from then nature and which are subsequently more or less processed) and energetic resources.

The importance of this approach and obviously the identification of certain realistic solutions to solve the dependency between the economic development and the natural environment made the object of certain debates which took place in March 2011 within the "*International Resource Panel's*" – IRP, group created in 2007 by UNEP – United Nations Environment Programme.

The declared purpose of the debates was the development of certain holistic approaches related to the management of human resources at worldwide level, launching the idea of a possible "*decoupling of human welfare from the consumption of natural resources*". This can be achieved by finding and using certain technologies which would require less raw materials originating from the nature, less water and less energy, which would lead to a "*cleaner economy*", namely an economy where the products and services obtain would not be beneficial only for the human being or for the society, society created and dominated by the human being, but also beneficial for the environment, environment which the human being, as much as he would have liked, he will be never able to completely subordinate. Only by promoting and developing a long term "*cleaner economy*", we can reach to the aimed and necessary survival and perpetuation of humans and of the overall human civilization. At the same time, along with the insurance of survival and perpetuation of the human civilization at the highest expression parameters, we can create the conditions which would lead to a certain reduction of social inequalities and, throughout time, to eradicate the poverty.

The financial crises whose debut is assessed to be on August 9, 2007, when the French bank BNP Parisbas announced that "*it cannot honor all the payments*" and when "*in the Great Britain, certain financial institutions start to tighten the conditions for credit granting towards the customers considered bad –payers*", strongly affected the production of goods and services, which form the justifiably called real economy.

The economic development up to the appearance and extension of the financial and economic crisis was possible and it was realized through the elaboration and application of certain economic strategies where the continuous and significant usage of the material resources represents an objective which, under no circumstance, does not present the slightest signs of doubt. Subsequently, the consumption of material resources at the level imposed by the economic strategies adopted by the companies, at the fundamental level, cannot be suspected that it did not have an incorrect and unrealistic objective and that it cannot be fulfilled in efficacy and efficiency conditions.

An aspect recognized by all the parties involved in the economic life is that within the conditions of a normal evolution of an economy, both the existing realities and the future forecasts demonstrate the fact that the abundance of material resources makes room for their scarcity. This means the continuous endearment of the material resources, which determines a real difficulty of the companies, not only to acquire them, but also to maintain them, as costs, at a level which would not affect the quality and competitiveness of the products they obtain or the services they provide. Moreover, within the current conditions of the economic – financial crisis, the overall problem of the material resources becomes an acute, high risky problem. Subsequently,

both in present and in the near or far future, it is possible that the shortage of the natural resources necessary for the functioning of the world economy and human society would be a large or very large one.

Under these conditions, another possibility to redistribute the responsibilities regarding the manner in which, through the economic activity, the human needs are going to be satisfied, becomes a concern of the companies, governments and states. This is the reason why another approach has to be established, as radical as possible, for the strategies which aim the economic development and the launch of the economic strategies which would create the obvious welfare and reduction of the current social inequity.

Likewise, it is very important that this new way to approach the economic strategies would take place with the reduction of the destabilization and even destruction risk of the fragile balance still existing in the environment. And we have to mention the fact that the environment continues to be the sole and large supplier of natural resources, resources which, regardless of their nature, non-renewable (minerals and fossil fuels), renewable (water, air and soil) or permanent (solar, geothermal and wind energy) can and are used by the human within the various economic activities which he permanently develops (Ionescu, 2003).

### **3. Purchase strategy – general considerations**

As the operation of a company, and by means of extension of an economy, cannot be conceived without an adequate insurance of material resources, the supply issue cannot be minimized or ignored. Taking into consideration the fact that within the particular current and future conditions, where, due to the economic and financial crisis, the operation of the market mechanisms is different from the known one, new approach means are imposed for the supply of companies with materials.

This means another knowledge, understanding and reaction manner to the effects generated by the evolution of the exterior environment.

As mentioned before, the economic development, registered especially throughout the last decades, was based in a significant and often uncontrolled manner on a continuous and strong increase of natural resource consumption. Under the conditions of an economic and financial crisis, this issue acquires stronger significances, the environmental deficit and the natural resource deficit can have a negative impact on the development of the entire human society, which is not only strong, but also has a long duration.

This is explained by the fact that, at the well-known and admitted scarcity of material resources we must add the particular sensibility of the prices reported to the malfunctioning occurring within the business environment, sensibility which actually has a single and particularly consequent expression, the price increase. The increasing and justified concerns related to the evolution on long and very long term of the environment, the fragility of ecosystems due to the absence of certain concrete and durable measures regarding the protection of the natural environment, the necessity to promote and support the sustainable development inevitably lead to a radicalization of the environmental policies applied not only by the economically developed countries but also by the developing countries, the latter representing an important, and often the only source of raw materials.

Within this context of evolution of the natural environment, both the production of raw materials and their consumption are experiencing a difficult situation. Both the production decrease and the increasingly reduced consumption possibilities of the companies and of the population are strongly perceived in all the structures of the human society, without the possibility of a realistic assessment regarding the duration of these negative manifestations in the economic and social life.

### **4. Purchase strategy and company macro environment**

If a general characterization of the economic environment was attempted within the conditions of the economic and financial crisis, it would definitely include assessments as: fewer and increasingly unconvincing possibilities of the governments to insure the budget balance, situation which is due to the significant decrease of the budget revenues and to the increase of the pressure on the expenses, an actual and profound crisis of sovereign debts, the dramatic decrease of commercial transactions on the market, the accentuation of the problems from the financial – banking market, the strong decrease of profit for most of the companies, regardless of their field of activity, size and importance, the manifestation of certain high imbalances between the labor demand and offer, which determined an almost generalized increase of unemployment, the continuous decrease of population's trust in its own capacity to satisfy, at a desirable level, the current and future consumption needs, the disappointment and disorientation of investors, the

decline risk of the middle class and the transformation, for a certain period of time, in poor class or even in irremediably poor class.

All these have as direct, constant and lasting effect the decrease in actual measures of the general welfare, welfare which, in a certain measure, characterized the evolution in the last decades not only of the strong economically developed states, but also of the emerging states.

In terms of the manner in which the technological environment influences the material entries in a company, at least two essential elements have to be taken into consideration.

First of all, we have to consider the fact that, through the globalization phenomenon, among other important benefits, a continuous and significant increase of the commercial exchanges was registered. This omnipresent phenomenon present at the level of an important part of the world countries allowed that any company, at least theoretically, to have a more free access to the important results of the progress registered by the science and technique. The mention “*at least theoretically*” is necessary, because in order to assimilate what science and technique provide from the point of view of the technological environment, the companies have to demonstrate that they hold a certain economic, technical and financial capacity which would allow them to benefit from such opportunities. Only the companies which hold the previously mentioned potential can purchase more performing technologies and new materials, with a higher quality where the technical progress can be found.

Thus, the premises of an efficacious and efficient activity can be created or, according to Peter Drucker, they are able “*to do the right thing*” (efficacy) and “*to do it right*” (efficiency). (Drucker, 1993).

Secondly, within the initiation and development of an economic crisis, the companies can deal with a certain instability, usually large and very large, of the business market. The economic and financial crisis, along with the environmental crisis, forces the producers to outsource their business towards locations where the costs with the labor force are mainly lower. Thus, the raw material resources market necessary for the companies extends, along with its lack of knowledge, and subsequently, the increase of business risk. In order to avoid the occurrence of difficulties in the achievement of material resources, the companies will have to perform a series of action which would allow a fairer and opportunistic knowledge of the market, which means large and very large expenses.

In order to avoid the major risks which can occur within the insurance of the material resources necessary to develop their own activity, the companies have to develop certain market studies, even if their result is not always and entirely useful for the company.

In terms of another component of the macro environment, namely the political and legislative environment, it is known that, for many companies, the internal and international policy of a certain state, as well as the legislation promoted and adopted, present a special interest. The sensibility of the companies towards the political and legislative environment is explained by the fact that, through the policy and legislation, a certain state expresses its own attitude towards businesses.

A state, whose political system is democratic, established in time and recognized as such, is able to promote and develop a coherent legislation, friendly for the business environment and significantly stable. Such a political system and such legislation, on one hand, warrant and protect the rights of the investors, thus observing the initial undertakings based on which the investments were performed, and on the other hand, can clearly mention and request the complete observance of the investors’ obligations towards the various state bodies.

If we also take into consideration the fact that the political stability decisively influences the current and future behavior of the financial market, the immediate and consistent reactions of the business environment towards the political and legislative system as component of the macro environment are fully justified. Moreover, in the economic and financial crises, the reactions generated by the situation of the political system, by the current legislation and by the eventual amendments to be made to the legislation, are more than obvious, reasonably determining a certain expectation of the investors in the development of their own businesses.

Another component of the macro environment is the international business environment (IBE), which is defined as “*the general conditions how the enterprises are organized in the entire world*” (Journal of Emerging Trend in Economics and Management Sciences (JETEMS) 2 (5), Scholarlink Research Institute Journals, 2011). The globalization phenomenon, the significant progresses in various field of activity and the unprecedented development of the free trade, determined that the influence of the international business

environment on the national economy is not only a permanent one, but also significant and continuously increasing. While the domestic and the foreign investor acts on a market characterized through “*a variety of languages and time zones*” (Scheuing, 1989, p. 7), the investor can no longer report only to the business environment from the country where he acts, but he also has to know and objectively evaluate a series of economic and social aspects of the international business environment, among which the most important aspects are related to: the appearance and development of certain new markets where the competition has expression levels, equally high and different, the free circulation of goods, capital and labor force between certain countries, especially between the strong economically and socially developed countries, the various cultural barriers which still exist between various countries, the different exchange rates of the currencies.

In the current stage of an important part of the world economy, when the effects of the economic and financial crisis, and even the crisis itself did not disappear, the need of a regeneration through modernization of the business environment appears as an absolute necessity.

The modernization of the internal and international environment has to take place within the conditions of a new approach, where the achievement of profit with any costs would not represent the only concern of a business and where, on one hand, the protection of the natural environment would be a permanent and quasi-general obligation, and on the other and, beyond the objectives aimed by the competition and competitiveness, the general strategy of a company has to compulsorily include the social, human and moral strategies.

### **5. Purchase strategy – elaboration and operational particularities**

These particularities of the macro environment’s evolution, along with the modification of the behavior expressed by the suppliers and customers, modifications which can be atypical due to the effects of the economic and financial crisis, have to be objectively and responsibly considered when raising the issue regarding the design and elaboration of a purchase strategy, as important component of the general strategy of a company.

Even within the conditions of larger or lower constraints related to the budget assigned for purchase, the general principles which have to orient a purchase strategy do not have to be abandoned.

Beyond the important role to insure the material resources necessary for the development of various activities within any company, the purchase also plays “*a key role in the long term planning system of the objectives of that company*” (Scheuing, 1989, p. 134).

The determining role in the operation and development of a company provides to the purchase the attribute of strategic activity, the purchase strategy being the component of the general strategy of a company. Being defined as “*a group of rules which determine the configuration of the purchase effort of a company throughout time as response to the changes taking place in the environment and within the competition and to allow it to take advantage of the opportunities occurring*” (Scheuing, 1989, p. 40), the purchase strategy will take into consideration, as main objectives: the establishment of sources where the material resources will be purchased, necessary for the development of all the company’s activities, the establishment of the optimal moments when orders for the purchase of what was expressed through the necessary items to be supplied are going to be launched, a necessary adaptation of the purchase behavior to the current and future market requirements, requirement supplemented by an accurate assessment of the life cycle stage of the products which make the object of purchase.

According to the quantitative and qualitative history of each of the previously mentioned objectives and according to the options of the company’s top management, it is possible for these objectives to be found as variants of the purchase strategy, namely the identification strategy, the coordination strategy and the adaptation strategy.

Regardless if we are talking about the objectives of the purchase strategy or about the objectives of the specific strategies which take into consideration certain components of the complex process of raw material purchase, we will take into consideration the manifestation particularities of the business environment within the conditions of the economic and financial crisis, the particularities which equally aim the macro environment and the microenvironment of a company.

This is especially important because the behavior of the companies can be different or very different. Subsequently, objectively considering the constraints imposed by the manifestation economic and financial

crisis, a very good knowledge of each company is imposed, which will make the object of a possible business which aims the purchase of raw materials and materials.

First of all, we have to take into consideration the indices for the characterization of the economic activity of a company, along with the various social aspects.

The main indices for the characterization of a company, possible future partner in the purchase activity, would be: the level of turnover registered and the evolution tendency of the turnover throughout a certain period from the past, the evolution of sales, the market share and the evolution of the market share, the investments in research – development in view of modernizing the products in manufacturing stage and to launch certain new products on the market, the concerns for the systematical market research, the existence and application of certain programs to reduce the manufacture costs, the price policy practiced and the eventual discounts provided, the potential to create a certain competitive advantage reported to the competitors, the capacity to calm down or even to stop an eventual erosion of the competitive advantage acquired, the services insured in the consumption and usage process of the products sold, the provision of warranties for certain products sold, the management of the relationships with the suppliers, customers, credit institutions and with the state, local and central authorities, the customer satisfaction level, the labor satisfaction level of the employees, the concerns related to the increase of qualifications of the personnel, the functioning of feedback within the business relationships undertaken by the company, the existence of certain environmental protection programs, the capacity of the possible partner company to engage in partnerships.

Obviously, throughout this period when the strictly specific elements are strongly represented, all these extremely important aspects in the company's approach to elaborate a purchase strategy or to correctly and efficiently manage an actual purchase activity have to be approached through the evolution particularities of the environment, namely, both from the perspective of the continued manifestation of the effects of the economic and financial crisis, and from the perspective of another possible recession.

This is the only manner in which the company will be able to prove its organizational and action capacities through which it can deal with the economic and financial crisis, through which it can attenuate or even annihilate the effects of the production cost increase, the increase of crediting costs, the reduction of consumption expenses, the practice of lower sales prices, the significant reduction of revenues and the often drastic reduction of the innovation activity.

## 6. References:

- Drucker P., (1993), *The Effective Executive*, Harper Business, New York
- Ionescu C., (2003), *Law and Legislation in Energy and Environment*, Course, Polytechnic University of Bucharest
- Scheuing, E.E., (1989), *Purchasing Management*, Prentice Hall, Englewood Cliffs, New Jersey.
- International Institute for Sustainable Development.
- Journal of Emerging Trends in Economics and Management Sciences, 2011.
- <http://naturalist.ro/stiinta-si-tehnologie>.
- [www.adevarul.ro/financiar](http://www.adevarul.ro/financiar) from October 10, 2008.

# CSR INTEGRATION IN CRISIS MANAGEMENT – NEW OPPORTUNITIES FOR ORGANISATIONS

**CRISTACHE Nicoleta**

*Associate professor, Ph.D., Faculty of Economic and Business Administration, "Dunărea de Jos" University, Galați, România, e-mail: cristache.nicoleta@yahoo.de*

**MICU Adrian**

*Associate professor, Ph.D., Faculty of Economic and Business Administration, "Dunărea de Jos" University, Galați, România, e-mail: mkdradrianmicu@yahoo.com*

**SUSANU Irina Olimpia**

*Associate professor, Ph.D., Faculty of Economic and Business Administration, "Dunărea de Jos" University, Galați, România, e-mail: irinasusanu@gmail.com*

**Abstract:** *The present paper tackles the issue of identifying a connection between crisis management and corporate social responsibility, which can also be a recipe option for organizations future success in strategic planning. CSR integration into business values improves the integrity of the organization, its business approach and also builds a capital for managing future crises. The results of this study show a superficial recognition of the role of CSR tools in crisis management shown by the Romanian managers. Nevertheless it provides support at the same time, for the premise that there is relationship between crisis management and CSR.*

**Key words:** *crisis management, corporate social responsibility, sustainable strategie*

**JEL classification:** M14

## 1. Introduction

Due to the economic crisis, all departments in large companies are forced to economize, but an intelligent method of achieving it involves certain responsibility at the same time. Companies that even before the crisis envisioned corporate social responsibility, planned and developed at a strategic level through management systems, had an accurate image of their available resources and how they are used for certain purposes. The economic crisis has had as consequence the review of activity in most companies. Those advocating for CSR who wanted to maintain a constant level have often remained without supporting arguments in the year that just ended.

This happened only in companies where social responsibility did not have a solid basis derived from business objectives. Since social responsibility is seen as a harmonising area between the community welfare in general and companies limited interests, it is important to support CSR through a corporate system having clearly-defined objectives.

Among the arguments that can be presented in favour of social responsibility by the community, environment or even the employees interests do not bring any contribution to the support of CSR activity compared to the counter-arguments of the critics, namely to assist business in achieving objectives.

Thus, there is an increased need for correlation and performance indicators to support the relationship between CSR and the traditional business goals, to be more accurate aspects to prove that personal interest and public interest are not necessarily contradictory concepts. This need has increased due to the financial crisis and control strengthening, but it will certainly not disappear after the period of recession. The truly-responsible leaders that are now facing a problem that those who have held traditional business positions have been trying to solve for decades more or less successfully. It is important for CSR professionals to initiate and develop links with employees throughout the entire organization. The all-encompassing nature of social responsibility justifies not only the collaboration between departments but also the need to assimilate this new science, which to the extent that it has reached a certain degree of development, it has reached an inflection point at the same time.

Experience shows that CSR tools prove to be very useful in certain situations such as loss of confidence, expectations and criticism, lengthy discussions on the business role. Identification and corporate effects management, dialogue with related parties, the ability to make the best of strategic partnerships are competences that in times of crisis can be much more effective than normal ones, can protect or increase brand value. That particular company and that particular brand that want to build self-confidence can only understand the situation, show interest, listen, react and communicate while social responsibility provides methods and platforms.

## **2. CSR – a concept in times of crisis**

The topic was tackled in serious discussions and adopted in management policy of the 50s despite endless debate. In developed nations, social movements and the principles of social democracy were not only an element of rationality but also a voice for those who felt that big corporations - considered to be the product of the production/mass consumption companies - were also those which set the performance standards in business in a way that distorted not only the reasoning in society but also benefits yielded by the private sector. In the '60s, the interest in CSR-related issues has become increasingly ardent to the extent that activists of all ideological and geographical areas demanded higher standards of government and business performance. The non-profit sector required a fair distribution of profits, while the academic environment was discussing the differences between modern and post-modern organizations.

As Basu and Plazzo (2008) pointed out: "The last three decades have witnessed a lively debate over the role of corporations in society". This point of view showed how CSR standards have been defined by the ideology of each society. Public Relations (PR) practitioners contribute to this ideology, being those who discuss business performance both internally and externally. Critics have pointed out that CSR might become isolated, self-serving and self-affirming- often to the detriment of society where CSR should have brought in social, political, technical and financial benefits. Public Relations can help organizations develop standards and implement them through the activities they perform and statements they make. Freeman and Liedtka noticed 17 years ago: "The idea of corporate social responsibility has failed to help create a better society. Being regarded as the missing link of capitalism by the academic environment and managers, the concept of corporate social responsibility has not kept its promise." Convinced of its failure, Freeman and Liedtka reasoned that this is a "dangerous idea", which led them to agree in principle but not in detail with Friedman (1970).

Friedman has gone through decades of controversy, arguing that the only responsibility of companies is to increase their profits (paradigm of organizational excellence). In order to function effectively, companies should only pay their employees wages and pay their dues. Nowadays Friedman has many supporters whose arguments are based on empirical tests that have failed to find a direct relationship between CSR activities and main indicators of the corporate financial performance within companies, such as profit (for instance: Agle, Mitchell and Sonnenfeld, 1999; Aupperde, Carroll, and Hatfield, 1985). Agle (1999) emphasized the methodological challenge: "Corporate social performance is notoriously difficult to quantify." Other authors argue that Friedman's perspectives on the role of companies underestimate the key issues. Thus Stove, Neill and Perkins (2004) were against the traditional interpretation of the "invisible hand" advocated by Adam Smith, placing shareholders wealth in the centre of corporate governance.

Nevertheless at a closer look at the ideas promoted by the English economist highlight "the principle of sympathy" as well as the ability and people's tendency to consider the interests of others. This perspective seems to be closer to the dominant concept of CSR, thus placing the concept of stakeholders in the centre of the idea of corporate governance. If sympathy suggests only philanthropy, we should mention that CSR requires empathy, a certain way of thinking and strategic planning that allows management to reconsider its role in society and upon the impact it has on society in which they run their business. Critics argue that Friedman failed to understand the benefits gained due to CSR: business cost reduction and sustainable profits. Regarding the relevance of the CSR concept, studies have shown that CSR is important for organizational success for two reasons: (1) it increases the organization's reputation, this being morally obligated to display correct behaviour, a rational choice that provides economic benefits to the society (Werther& Chandler, 2006), and (2) it supports the organization's credibility in crisis situations.



### 3. Identifying correlations between CSR and different variables via SPSS software

In order to test the correlations between CSR and different organisational variables (company size, field of activity, amplitude of the crisis) the following we three hypotheses were formulated:

**H<sub>1</sub>: Integrating CSR programmes into business management is influenced by the amplitude of the crisis;**

**H<sub>2</sub>: Integrating CSR programmes into business management is influenced by the field of activity in which the company operates;**

**H<sub>3</sub>: Integrating CSR programmes into business management is influenced by the size of the company.**

The testing of the above-mentioned hypotheses was facilitated by the use of the chi square method, which is applied in order to determine whether there are significant differences between the expected and the observed frequencies associated to some variables. The use of this statistical method involves the formulation of two hypotheses: the null hypothesis, according to which there are no significant differences between the expected and the observed frequencies associated to the analyzed variables and the alternative hypothesis, which is a negation of the null hypothesis.

The main advantage of using SPSS software applications when implementing the chi square method lies in the opportunity of configuration crosstab tables based the statistical information identified in the program database.

Applying the chi square method in **H<sub>1</sub>** hypothesis implies the design of the double-entry contingency table that enables the classification of the observed frequencies (table 1).

*Table 1: Contingency table associated to H<sub>1</sub> hypothesis testing (observed frequencies)*

<b>Amplitude of the crisis</b> <b>CSR level of integration</b>	<b>Early stage</b>	<b>Medium stage</b>	<b>Extensive stage</b>	<b>TOTAL</b>
Unsatisfactory	9	4	4	<b>17</b>
Medium	6	11	8	<b>25</b>
Strong	2	14	2	<b>18</b>
<b>TOTAL</b>	<b>17</b>	<b>29</b>	<b>14</b>	<b>60</b>

**The null hypothesis** associated to the first hypothesis of the research **H<sub>0(1)</sub>** is defined as follows: the integration process of CSR programmes in business management is **not influenced significantly** by the amplitude of the crisis, expressed by its stage of manifestation.

The output corresponding to **H<sub>1</sub>** hypothesis testing via SPSS software, after the configuration process of the contingency table by selecting the crosstabs menu, is highlighted in the figure 1:

**Figure 1 – Results after testing H<sub>2</sub> hypothesis by using SPSS software**

	<i>Cases</i>					
	<i>Valid</i>		<i>Missing</i>		<i>Total</i>	
	<i>N</i>	<i>Percent</i>	<i>N</i>	<i>Percent</i>	<i>N</i>	<i>Percent</i>
CSR Integration +amplitude of the crises	60	100,00%	0	,0%	60	100,0%

*Integration CSR"Amplitude of the crises" Crosstabulation*

*Count*

		Amplitude of the crisis			
		Early	Medium	Excessive	Total
Level of CSR integration	Unsatisfactory	9	4	4	17
	Medium	6	11	8	25
	Strong	2	14	2	18
Total		17	29	14	60

*Chi-Square Tests*

	Value	df	Asymp Sig (2-sided)
Pearson-Chi Square	13,130 <sup>a</sup>	4	,011
Likelihood Ratio	13,164	4	,011
Linear-by-Linear Association	1,394	1	,238
N of Valid Cases	60		

*a.3 cells (3,33%) have expected count less than 5. The minimum expected count is 3,97*

Thus the value associated to the asymptotic significance level (**Asymp. Sig.=0,011**) is lower than the accepted significance level (0,05), while the value of **Pearson Chi-Square indicator** (13,130) is higher than the value associated to the chi-square index corresponding to the statistical table (9,49) in the context of 4 degrees of freedom. Under these circumstances **the null hypothesis is rejected**, concluding that **there is an association between the two variables included in the H<sub>1</sub> hypothesis** (CSR integration and amplitude of the crisis, expressed by the stage of manifestation and its effects upon the business environment).

Applying the chi square method in **H<sub>2</sub>** hypothesis implies the designing of the double-entry contingency table that enables the classification of the observed frequencies (table 2)

*Table 2: Contingency table associated to H<sub>2</sub> hypothesis testing (observed frequencies)*

<b>Field of activity</b> <b>CSR integration level</b>	<b>Commerce</b>	<b>Services</b>	<b>Industry</b>	<b>TOTAL</b>
Unsatisfactory	7	6	4	<b>17</b>
Medium	13	8	4	<b>25</b>
Strong	7	8	3	<b>18</b>
<b>TOTAL</b>	<b>27</b>	<b>22</b>	<b>11</b>	<b>60</b>

**The null hypothesis** associated to the second hypothesis **H<sub>0(2)</sub>** of the research is defined as follows:

CSR programmes integration into the management of organizations **is not significantly influenced** by the field of activity in which they operate.

The result corresponding to **H<sub>2</sub>** hypothesis testing via SPSS software, after the contingency table configuration using cross-tabs menu are shown in figure 2:

**Figure 2 – Results corresponding to H<sub>2</sub> hypothesis testing via SPSS software**

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
CSR Integration+field of activity	60	100,00%	0	,0%	60	100,0%

*Integration CSR"Field of activity" Crosstabulation*

Count		Field of activity			
		Commerce	Services	Industry	Total
Level of CSR integration	Unsatisfactory	7	6	4	17
	Medium	13	8	4	25
	Strong	7	8	3	18
Total		27	22	11	60

*Chi-Square Tests*

	Value	df	Asymp Sig (2-sided)
Pearson-Chi Square	1,283 <sup>a</sup>	4	,864
Likelihood Ratio	1,250	4	,870
Linear-by-Linear Association	,027	1	,870
N of Valid Cases	60		

*a.3 cells (3,33%) have expected count less than 5. The minimum expected count is 3,12.*

The value associated to the asymptotic significance level (**Asymp. Sig.=0,864**) is higher than the accepted significance level (0,05), while the value of **Pearson Chi-Square indicator** (1,283) is lower than the value associated to the chi-square index corresponding to the statistical table (9,49) in the context of 4 degrees of freedom. Under these circumstances **the null hypothesis is accepted**, concluding that **there is not an association between the two variables included in the H<sub>2</sub> hypothesis** (CSR integration and field of activity of the companies involved in the research).

Applying the chi square method in **H<sub>3</sub>** hypothesis implies the designing of the double-entry contingency table that enables the classification of the observed frequencies (table 3).

*Table 3: contingency table corresponding to H<sub>3</sub> hypothesis testing (observed frequencies)*

Size of the company Level of CSR integration CSR	Less than 10 employees	Between 10 and 50 employees	More than 50 employees	TOTAL
Unsatisfactory	3	12	2	17
Medium	1	7	17	25
Strong	1	7	10	18
<b>TOTAL</b>	<b>5</b>	<b>26</b>	<b>29</b>	<b>60</b>

**The null hypothesis** corresponding to the first hypothesis of the research, namely **H<sub>0(3)</sub>** is defined as follows: the integration process of CSR tools into the management of the companies involved in the research **is not significantly influenced** by the size of the companies determined by the number of employees.

The results corresponding to **H<sub>1</sub>** hypothesis testing via SPSS software, after the contingency table configuration using cross-tabs menu are shown in figure 3:

**Figure 3 – Results corresponding to H<sub>3</sub> hypothesis testing via SPSS software**

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
CSR Integration +size of the company	60	100,00%	0	,0%	60	100,0%

*Integration CSR"Size of the company » Crosstabulation*

Count		Field of activity			
		<10 employees	10-50 employees	>50 employees	Total
Level of CSR integration	Unsatisfactory	3	12	2	17
	Medium	1	7	17	25
	Strong	1	7	10	18
Total		5	26	29	60

*Chi-Square Tests*

	Value	df	Asymp Sig (2-sided)
Pearson-Chi Square	13,751 <sup>a</sup>	4	,008
Likelihood Ratio	15,045	4	,005
Linear-by-Linear Association	6,370	1	,012
N of Valid Cases	60		

*a.3 cells (3,33%) have expected count less than 5. The minimum expected count is 1,42.*

The value associated to the asymptotic significance level (**Asymp. Sig.=0,008**) is lower than the accepted significance level (0,05), while the value of **Pearson Chi-Square indicator** (13,751) is higher than the value associated to the chi-square index corresponding to the statistical table (9,49) in the context of 4 degrees of freedom. Under these circumstances **the null hypothesis is rejected**, concluding that **there is an association between the two variables included in the H<sub>3</sub> hypothesis** (CSR integration and the size of the companies involved in the research).

#### 4. Conclusion

*To conclude, we point out that out of the three hypothesis only one has been validated by applying the chi-square test (correlations between the CSR programmes integration into business management, companies size and crisis amplitude). Moreover in case of testing the correlation between the CSR programs integration into the business management, crisis amplitude and company's field of activity, the null hypothesis has been accepted.*

*Online research focused on identifying opportunities for managers of companies that have been facing organizational crises is characterized by the ability to transfer answers automatically to SPSS software database, eliminating at the same time the problems related to the management of the collected information. The new web-based technologies and especially PHP programming language managed to fully eliminate the technical limitations of online research, which are used increasingly and more and more globally due to cost-related advantages, opportunities of results analysis and protecting respondents' confidentiality.*

## 5. References

- Allen, M., (1999). *The direct and indirect influences of human values on product ownership*, Journal of Economic Psychology, nr.20
- Oprea, L., (2007). *Responsabilitate Socială Corporatistă*, București, Editura Triton
- Perrinjaquet, A., Furrer, O., (2007). *Revista Română de Marketing*, nr.1, București
- Redman, E.,(2006). *Three Models of CSR*, research paper, The Roosevelt Institution.

# CALCULATING METHODS REGARDING THE INFORMATIONAL MODERNISATION OF THE EMERGENCY MANAGEMENT

DAN Gheorghe

Phd.ing.student, Technical University of ClujNapoca, România, dan3112@yahoo.com

MORAR Liviu

Prof.dr.ing. Technical University of ClujNapoca, România, liviu.morar@staff.utcluj.ro

**Abstract:** An important role in improving information emergency management is occupied by the mathematical modelling. It allows to examine the structure and dynamic of emergencies systems, identifying ways and methods to effectively employ all available forces and means in solving emergency situations. Therefore, optimal management of information in the set up structures for emergency management is the cornerstone that allows efficiency to all activities.

**Keywords:** information network, optimization, model, decision.

## 1. Introduction

Upgrading information for emergency management is based on accurate scientific calculations and has a big importance for structuring the information flow.

When seeking to optimize linkages between the driving information base point (PCB) and management points from the areas of activity (PCS<sub>1</sub> to S<sub>6</sub>) is required to analyze the networks information structures we can use.

They consist of elements between which are trades of decision information (nodes), using specific WAN networks technology (Wide Area Network - Wide Area Network) (Zota, 1999), compliant with the chosen optimization method.

Developing a information network for information management we need to envisaged that the organizational information system is the best.

One of the main criteria that can lead to *optimization* of emergency information network is studied by Bavelas (Alexandrescu, 2009; Wysoki; DeMichiell, 1997).

## 2. Mathematical modeling of information network optimization

If we consider the graph associated with an information network (the nodes of the graph represents the management point of view of the analysed structure and the arches are the links), each node  $x_i$  can be associated with each arc length  $d_{ij}$  and it represents the *minimum* path length between the nodes  $i$  and  $j$ .

For a network with  $n$  nodes, we have:

*Centrality index point:*

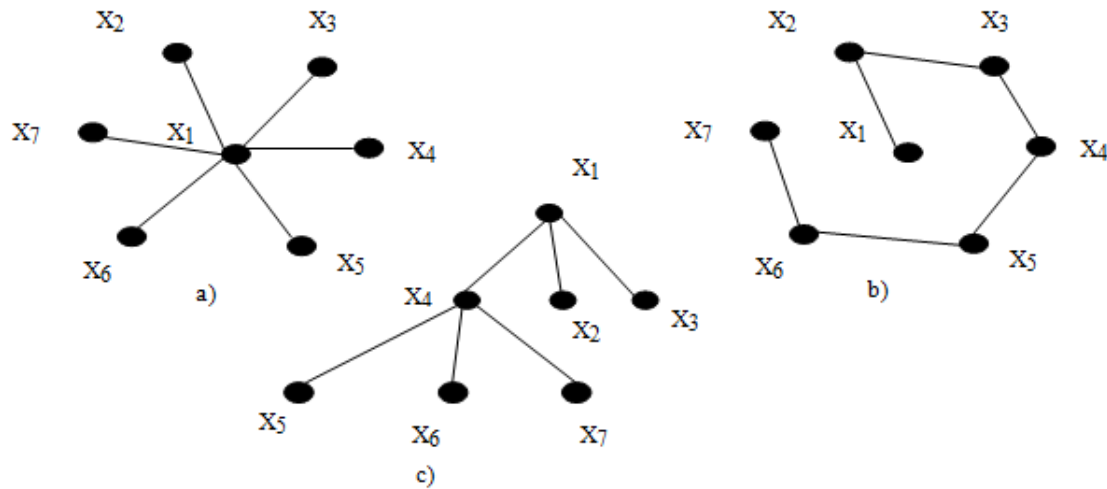
$$c_i = \frac{\sum_{j=1}^n d_{ij}}{\sum_{j=1}^n d_{ij}}, \quad i \neq j, \text{ and} \quad (1)$$

*Global index point*

$$C = \sum_{i=1}^n c_i \quad (2)$$

We consider the information network shown in Figure 1, where node  $x_i$  is associated to basic control point and  $x_i, i = 2 \div 7$  are the control nodes of each sector ( $x_2$  – for sector 1, ...,  $x_7$  – for sector 6).

Figure 1: Structures of network management information associated with leading points



Statements presented in Figure 1 are hypotheses that currently work. They are taken into account in the moment of points distribution into the field, when the complexity of emergency management recommends hierarchical management intervention with more forces.

Example: For Figure 1 c), where PCB is the Emergency Inspectorate of Satu Mare, according to the map from Figure 2, it will coordinate the PCS1, PCS2 and PCS3 activities points, corresponding to  $x_2$ ,  $x_3$  and  $x_4$ , in Beltiug, Socond and Acâș villages home. PCS<sub>4</sub> (Acâș) will coordinate the management point from S<sub>4</sub> S<sub>5</sub> and S<sub>6</sub> corresponding to  $x_5$ ,  $x_6$  and  $x_7$  (Supur, Bogdand and Hodod). Having the same logic, the explanation is similar for the two cases what were taken into consideration.

Figure 2: Example of a hierarchical network management between ranked points



For the network in Figure 1 a) the arc lengths are presented in table 1.

**Table 1: Arc lengths for fig. 1a)**

d <sub>12</sub> =1	d <sub>21</sub> =1	d <sub>31</sub> =1	d <sub>41</sub> =1	d <sub>51</sub> =1	d <sub>61</sub> =1	d <sub>71</sub> =1
d <sub>13</sub> =1	d <sub>23</sub> =2	d <sub>32</sub> =2	d <sub>42</sub> =2	d <sub>52</sub> =2	d <sub>62</sub> =2	d <sub>72</sub> =2
d <sub>14</sub> =1	d <sub>24</sub> =2	d <sub>34</sub> =2	d <sub>43</sub> =2	d <sub>53</sub> =2	d <sub>63</sub> =2	d <sub>73</sub> =2
d <sub>15</sub> =1	d <sub>25</sub> =2	d <sub>35</sub> =2	d <sub>45</sub> =2	d <sub>54</sub> =2	d <sub>64</sub> =2	d <sub>74</sub> =2
d <sub>16</sub> =1	d <sub>26</sub> =2	d <sub>36</sub> =2	d <sub>46</sub> =2	d <sub>56</sub> =2	d <sub>65</sub> =2	d <sub>75</sub> =2
d <sub>17</sub> =1	d <sub>27</sub> =2	d <sub>37</sub> =2	d <sub>47</sub> =2	d <sub>57</sub> =2	d <sub>67</sub> =2	d <sub>76</sub> =2

The corresponding indices for the information network from figure 1 a), are:

$$c_1 = \frac{\sum_{j=1}^7 d_{1j} + \sum_{j=1}^7 d_{2j} + \sum_{j=1}^7 d_{3j} + \sum_{j=1}^7 d_{4j} + \sum_{j=1}^7 d_{5j} + \sum_{j=1}^7 d_{6j} + \sum_{j=1}^7 d_{7j}}{\sum_{j=1}^7 d_{1j}} =$$

$$= \frac{6+11+11+11+11+11+11}{6} = \frac{72}{6} = 12$$

$$c_2 = \frac{6+11+11+11+11+11+11}{11} = \frac{72}{11} \approx 6,55$$

$$c_3 = \frac{6+11+11+11+11+11+11}{11} = \frac{72}{11} \approx 6,55$$

$$c_4 = \frac{6+11+11+11+11+11+11}{11} = \frac{72}{11} \approx 6,55$$

$$c_5 = \frac{6+11+11+11+11+11+11}{11} = \frac{72}{11} \approx 6,55$$

$$c_6 = \frac{6+11+11+11+11+11+11}{11} = \frac{72}{11} \approx 6,55$$

$$c_7 = \frac{6+11+11+11+11+11+11}{11} = \frac{72}{11} \approx 6,55$$

$$C = c_1 + c_2 + c_3 + c_4 + c_5 + c_6 + c_7 \approx 51,30 \quad (3)$$

Therefore, any subordinate node ( $x_2 \div x_7$ ) is not disadvantaged in terms of information and losing connections with any of them produce the same damage.

The network from Figure 1b), has the arc lengths presented in table 2.

**Tabel 2: Arc lenghts for figure 1b)**

d <sub>12</sub> =1	d <sub>21</sub> =1	d <sub>31</sub> =2	d <sub>41</sub> =3	d <sub>51</sub> =4	d <sub>61</sub> =5	d <sub>71</sub> =6
d <sub>13</sub> =2	d <sub>23</sub> =1	d <sub>32</sub> =1	d <sub>42</sub> =2	d <sub>52</sub> =3	d <sub>62</sub> =4	d <sub>72</sub> =5



d <sub>14</sub> =3	d <sub>24</sub> =2	d <sub>34</sub> =1	d <sub>43</sub> =1	d <sub>53</sub> =2	d <sub>63</sub> =3	d <sub>73</sub> =4
d <sub>15</sub> =4	d <sub>25</sub> =3	d <sub>35</sub> =2	d <sub>45</sub> =1	d <sub>54</sub> =1	d <sub>64</sub> =2	d <sub>74</sub> =3
d <sub>16</sub> =5	d <sub>26</sub> =4	d <sub>36</sub> =3	d <sub>46</sub> =2	d <sub>56</sub> =1	d <sub>65</sub> =1	d <sub>75</sub> =2
d <sub>17</sub> =6	d <sub>27</sub> =5	d <sub>37</sub> =4	d <sub>47</sub> =3	d <sub>57</sub> =2	d <sub>67</sub> =1	d <sub>76</sub> =1

The corresponding indices for the information network from figure 1 b), are:

$$c_1 = \frac{\sum_{j=1}^7 d_{1j} + \sum_{j=1}^7 d_{2j} + \sum_{j=1}^7 d_{3j} + \sum_{j=1}^7 d_{4j} + \sum_{j=1}^7 d_{5j} + \sum_{j=1}^7 d_{6j} + \sum_{j=1}^7 d_{7j}}{\sum_{j=1}^7 d_{1j}} =$$

$$= \frac{21+16+13+12+13+16+21}{21} = \frac{112}{21} \approx 5,33$$

$$c_2 = \frac{21+16+13+12+13+16+21}{16} = \frac{112}{16} = 7$$

$$c_3 = \frac{21+16+13+12+13+16+21}{13} = \frac{112}{13} \approx 8,61$$

$$c_4 = \frac{21+16+13+12+13+16+21}{12} = \frac{112}{12} \approx 9,33$$

$$c_5 = \frac{21+16+13+12+13+16+21}{13} = \frac{112}{13} \approx 8,61$$

$$c_6 = \frac{21+16+13+12+13+16+21}{16} = \frac{112}{16} = 7$$

$$c_7 = \frac{21+16+13+12+13+16+21}{21} = \frac{112}{21} \approx 5,33$$

$$C = c_1 + c_2 + c_3 + c_4 + c_5 + c_6 + c_7 \approx 51,24 \quad (4)$$

It results that in order to have a proper network function from figure 1b), the nodes  $x_2 \div x_6$  are very important.

For the network showned in figure 1c), the arc lenght are presented in table 3.

**Tabel 3: Arc lenght for figure 1c)**

d <sub>12</sub> =1	d <sub>21</sub> =1	d <sub>31</sub> =1	d <sub>41</sub> =1	d <sub>51</sub> =2	d <sub>61</sub> =2	d <sub>71</sub> =2
d <sub>13</sub> =1	d <sub>23</sub> =2	d <sub>32</sub> =2	d <sub>42</sub> =2	d <sub>52</sub> =3	d <sub>62</sub> =3	d <sub>72</sub> =3
d <sub>14</sub> =1	d <sub>24</sub> =2	d <sub>34</sub> =2	d <sub>43</sub> =2	d <sub>53</sub> =3	d <sub>63</sub> =3	d <sub>73</sub> =3
d <sub>15</sub> =2	d <sub>25</sub> =3	d <sub>35</sub> =3	d <sub>45</sub> =1	d <sub>54</sub> =1	d <sub>64</sub> =1	d <sub>74</sub> =1
d <sub>16</sub> =2	d <sub>26</sub> =3	d <sub>36</sub> =3	d <sub>46</sub> =1	d <sub>56</sub> =2	d <sub>65</sub> =2	d <sub>75</sub> =2
d <sub>17</sub> =2	d <sub>27</sub> =3	d <sub>37</sub> =3	d <sub>47</sub> =1	d <sub>57</sub> =2	d <sub>67</sub> =2	d <sub>76</sub> =2

The corresponding indices of the information network from figure 1 c), are:

$$\begin{aligned}
c_1 &= \frac{\sum_{j=1}^7 d_{1j} + \sum_{j=1}^7 d_{2j} + \sum_{j=1}^7 d_{3j} + \sum_{j=1}^7 d_{4j} + \sum_{j=1}^7 d_{5j} + \sum_{j=1}^7 d_{6j} + \sum_{j=1}^7 d_{7j}}{\sum_{j=1}^7 d_{1j}} = \\
&= \frac{11+14+14+8+13+13+13}{11} = \frac{86}{11} \approx 7,82 \\
c_2 &= \frac{11+14+14+8+13+13+13}{14} = \frac{86}{14} \approx 6,14 \\
c_3 &= \frac{11+14+14+8+13+13+13}{14} = \frac{86}{14} \approx 6,14 \\
c_4 &= \frac{11+14+14+8+13+13+13}{8} = \frac{86}{8} = 10,75 \\
c_5 &= \frac{11+14+14+8+13+13+13}{13} = \frac{86}{13} \approx 6,62 \\
c_6 &= \frac{11+14+14+8+13+13+13}{14} = \frac{86}{14} \approx 6,62 \\
c_7 &= \frac{11+14+14+8+13+13+13}{14} = \frac{86}{14} \approx 6,62 \\
C &= c_1 + c_2 + c_3 + c_4 + c_5 + c_6 + c_7 \approx 50,71
\end{aligned} \tag{5}$$

It result that in order to have a proper function for the network presented in figure 1c) it is very important the  $x_4$  node.

From the study we can see that the organizational level of the network from figure 1a) is better, the global centrality index being higher.

$$C_{fig.1a} = 51,30 > C_{fig.1b} = 51,24 > C_{fig.1c} = 50,74. \tag{6}$$

Beside the centrality index, other important factors of the organizational information network that has to be taken into account are the economic and operational factors. The information has one direction trajectory simultaneously from PCB to PCS<sub>1-6</sub>, without going through other nodes that have a retarding effect on its transmission, aspect which is not allowed in emergency situations, the information being the basic support of the manager in decision making intervention.

Another reason for choosing the network in fig.1a) is that the total system works with the following features (Ramniceanu, 2007):

- Compatibility;
- Interoperability;
- Interchangeability;
- Standardization;
- Accuracy;
- Availability;
- Flexibility;
- Privacy and security;

- Viability;
- Ergonomics.

Organizing information network on the models shown in the figures 1b) and 1c) does not meet these principles, therefore such a network is not viable.

Taking into account the accelerated cadence of events that take place in emergency situations, there is a need to use a system in order to assist the managers. The system should not obstruct the reasonable process of managers, but it must increase the capacity of analysis and decision making and it must become an extension of managers reason (Boldur, 2009).

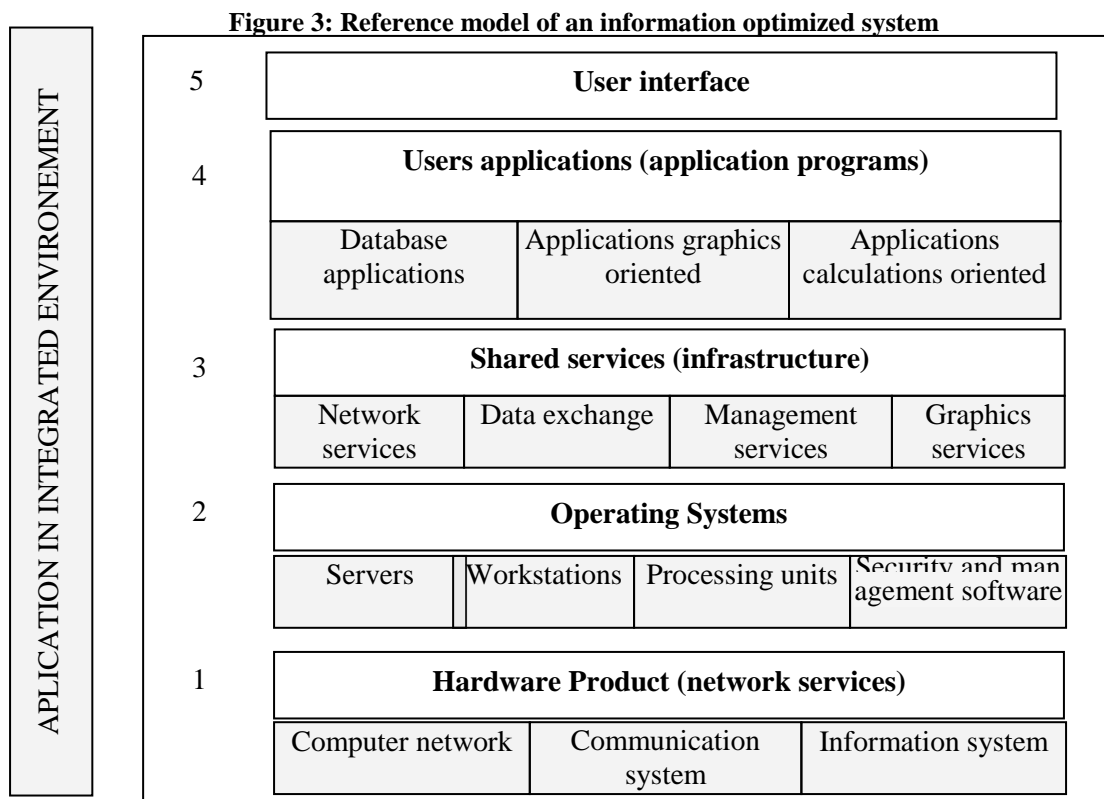
The main novelty element in the optimized informational system consists in the existence of the mobile command points, that are capable to ensure the closure of the management of the intervention object.

All information on emergency management must be found in databases, they have to be continuously updated and need to be used immediately, depending on the specific situation (Ciobanu; Ilie; Nour, 2006).

A thorough insurance information to each department involved in solving emergency situations is considered an important condition for the success of the intervention actions (Habracken, 2002).

Upgrading information system for emergency management should be based on full implementation of all standardization elements.

Reference model of an information system is detailed in figure 3.



Source: (Alexandrescu, 2009)

For example, in the case of crews alerting to participate at intervention using communication techniques we have a permanent contact with the dispatcher from the order point, for any new information on the operational situation.

The computer network having a database with graphics-oriented applications can easily locate the center of the disaster area, the user interface in this case being the portable computer (laptop). Response teams sent reports and pictures from the intervention place with the help of equipment which works through integrated operating environment.

Treatment of the data and of the information, operational information flows and procedures, use of processing information are the result of the performance and execution management.

We can note that the main element of the information system is the information infrastructure with four basic components (Alexander, 2002):

- Information management system;
- Data and information resources;
- Information technology;
- Processes information (mostly automated).

### 3. Conclusion

If in the past, information technology, was aimed at storing data, in the modern world it provides a dynamic view on the emergency situations, facilitating the adaptation of decision-makers factors on environmental changes and random events that can occur during the disasters event.

In this way, information technology is extremely important in achieving objectives in resolving emergency situations. In addition, it is applicable to any area of organizational system regardless the size.

### 4. References

- Alexandrescu, D. (2009) *Optimizarea managementului informației în situații de urgență*, UNAp, București;
- Alexander, D. (2002) *Principles of Emergency Planning and Management*, Terra Publishing;
- Boldur, Gh. (2009) *Procese informaționale și de decizie*, Editura Științifică, București;
- Ciobanu, I.; Ilie, Gh.; Nour, A. (2006) *Confruntare informațională și protecția informațiilor*, Editura Detectiv, București;
- Habracken, J. (2002) *Rețele de calculatoare*, Editura ALL;
- Purcărea, C. (2006) *Sisteme de comandă și control pentru asistarea comandantului și statului major în luarea deciziilor la eșaloanele tactice din forțele terestre*, UNAp.;
- Rîmniceanu, Ruxandra, (2007) *Contribuții la optimizarea managementului informațiilor în sistemul de securitate națională*, UNAp, București;
- Wysoki, R.K.; DeMichiell, R.L. (1997) *Managing Information Across the Enterprises*, ed. John Willey.
- ZOTA, R., (1999) *Soluii de securitate pentru Internet*, Revista Informatică Economică, nr.12/71, A.S.E., Bucuresti.

# PROJECT MANAGEMENT RISK ASSESMENT WITHIN LARGE CORPORATIONS

*DIRVA Cristian*

*Ph.D. student, Faculty of International Business and Economics, "The Bucharest University of Economic Studies" Academy, Bucharest, Romania, e-mail: cristian.dirva@gmail.com*

*DIRVA Anda Simona*

*Ph.D. student, Faculty of International Business and Economics, "The Bucharest University of Economic Studies" Academy, Bucharest, Romania, e-mail: anda.dirva@gmail.com*

**Abstract :** *Risk is defined as uncertainty about a planning and it may arise from various situations as economical turbulences, financial loss or gain, delays, social problems and so on. Another cause for increased risk is the change of relationships between the parties involved in a business process.*

*Our study's main purpose is to present the setbacks in convincing the decision factors in large organizations about the use of project management inside their organization and to demonstrate which are the advantages of a rigorous risk management using the project management tools philosophy.*

**Key words:** project, management, risk, planning, analysis

**JEL classification:** M10, G32, D81

## 1. Introduction

This paper addresses the importance of the project management procedures implementation, especially in large organizations and it's impact on the business.

We are trying to focus here first of all on the concerns and setback involved in a project management system implementation in relation with the senior management point of view and existing corporate culture and policies. Our main focus is on risk management within projects, the available tools to classify, measure, control and avoid risk.

As an adjacent theme we are discussing about change management in relation to strategic planning for project management, this being a very important topic for companies which wish to accelerate the project management learning and implementation curve.

The purpose of this paper is to show that not all situations can be anticipated but, all of those that can be anticipated should also be considered, evaluated and addressed with a detailed action plan in order to minimize the negative effects or to achieve the most from the occurrence of each positive event. Our scope is to show that the use of project management has a high impact on the profit and loss scenarios by placing the organizations business into a controlled, predictable environment.

## 2. Project management in relation to corporate culture and values

During favourable economic times the executives are reluctant to changes in management style and corporate culture. Unfortunately there are times when the 'bad weather' comes. As economic conditions deteriorate the organizations react and try to make changes 'on the spot', reacting to the outside business affecting factors. During such periods the change occurs more and more quickly but unfortunately the ability to change for such big structures is usually measured in years, obviously not fast enough to keep up with the economic environment. The lack of project management methodology and strategic planning are the big two factors which lead to missing opportunities.

The history shows us that before the recession of 1989 – 1993 in U.S. companies were implementing project management methodologies, if they were at all doing it, mainly at the production levels of their organizational structures, while executives and managers were 'hard to catch' on such meetings. They were all considering that their guidance was enough to keep the company running and developing the business

further on. Most of the project management implementations were actually only consisting in the implementation of new tools for the benefit of the employees, not for the company itself.

Facing the recession, the managers and executives realized that they were not as well prepared as they thought and they were made conscious of their lack of project management skills.

At the end of the recession, in 1993, the companies began to recognize the fact that not only the build of a strategy is important, but also the implementation of a strategic plan, based on the project management principles. Suddenly the senior management began to pay attention to project management and admitted that the principles of project management could be used as well for the implementation of the strategic plans and the operational plans.

We should obviously start by defining the term 'success' in project management, in relation to the company's needs. Success in projects is usually defined as the achievement of project's objectives within the allocated time, in the budget and meeting the requirements while quality standards are kept as defined by the customer.

Experienced organizations have well defined corporate cultures based on procedures that took years to be developed and that is the reason why the four preceding constraints have been extended. The project implementation and completion must bring minimal or mutually agreed scope changes without disturbing the organization's corporate culture, values or the usual workflow.

Even if the project manager needs to bring in the organization those changes, which lead to the project success, the company's executives must take care of the present values of the organization and this is exactly why the project manager should not expect senior offices to give him free hand. In order to achieve a successful project the executives and the project manager should be able to define that success in terms of both what is good for the project and what is good for the organization.

The first step for strategic planning is to define the critical success factors. These factors include all activities that should be performed to achieve long-term objectives. Even if most of the organizations are devoted to fully implement a project management system, unfortunately, different milestones bring serious problems that have to be overcome. If the critical success factors can be achieved completely the project is a success but if only one of those factors fails to be achieved the organization's competitive position is threatened.

### **3. The need for 'Change Management'**

Change management is one of the big topics in large organizations during the implementation of the strategic planning for project management, especially because their experience, culture, values and work procedures are well defined during a long period of time, based on past experience. This is the main reason why the executives are paying a lot of attention to change management, trying to minimize the risks that change will bring but also to accelerate the project management learning curves.

The main purpose of a project manager is to create a tailored methodology and procedures for the implementation, in such a way that the employees who will need to change their work procedures and habits will not feel obstructed or confused.

Most companies use the same basic knowledge and procedures for the strategic planning and project management implementation, as these tools are limited. The role of the project manager is to make the difference. He is the one who grants the success of the project and brings all involved decision making factors and operational levels at the same table. His ability to manage the existing knowledge base and manage changes will make the difference during the implementation, this being the main reason why the companies are successful or not even if we are all practically basing our methodologies on the same knowledge base.

An ideal learning cycle for all the involved project members would be obtained by individual training of each employee using the results of the project manager's analysis in such a way that he would be educated and presented with the ways and options to manage risk, benchmark and continuous improvement. Unfortunately the time and cost factors of the project will not allow the project manager to take such detailed actions and actual learning will actually be based on the on-the-job experience of the employee, his educational background and knowledge transfer.

The 'human factors' make the change management one of the big failure risks and resistance to change is one of the most known problems, especially in traditional companies. This resistance to change has different manifestations within the organization's departments, depending on their level of involvement in the project,

expected level of change, work nature and experience.

Statistics show us what is the departmental behaviour and reaction to change inside complex organizations, which are the structures that feel most threatened by project management and why, as shown below (resistance to change presented from high to low).

**Sales Department:** The sales department is always focusing on success and bonuses, in each organization. The greatest fear of the sales people is that someone else will take credits for the company's success and this will affect their performance bonuses. This is the main reason why the sales department is the most change resistant department.

**Marketing Department:** The marketing people always fear that the project managers will be granted marketing attributions and that the customers will address the project managers instead. This is a normal customer behaviour and the reason for that is the usual practice and attributions of the marketing people, as they are only usually involved in the sales process and then they disappear. This is the reason why customers prefer talking to the people who will be involved in the entire project, in this case the project management team and also the source of the marketing department's fear.

**Finance and accounting:** The main reason for fear related to the finance and accounting departments is the workload. They consider that project management implementation will result in additional horizontal reporting, by this means increasing their workload and changing the vertical ways to report that they are used to.

**Procurement:** The procurement people want to be in charge of the entire procurement process and consider that the implementation of a project management system will also bring a parallel procurement system, bypassing their responsibilities and overview.

**Human resources:** The HR department is usually neutral to project management implementation. Their only fear is that they will have to drastically change their training courses in order to meet the new project management methodology, which makes them a little uncomfortable because of a bigger workload.

**Manufacturing:** The manufacturing department opposes less resistance as they are used to project based working. Even though production is not a project based process there are often various certification projects in which they take part, maintenance projects and so on.

**Engineering, R&D, IT:** These departments will always be the ones who oppose fast no resistance to the implementation of project management procedures, techniques and methodology as they are project-driven departments by default. Project management is viewed here as a necessity.

The necessity to understand resistance to change is imperative if we want the project to be successful. People tend to be resistant to change especially when they are satisfied with the working environment but not only. Even if the people need a change in their workflow or environment the project managers' ability to demonstrate and convince them that the change is possible and beneficial is crucial. People usually tend to be reluctant to change, putting an accent on things they have to give up rather than the added value of the process. The organization as a whole may be willing to change but there will be people who are not handling change so easy and here comes in play the management pressure. The management team has to be convinced of the benefit of change and added value, they are never allowed to ease up on the change process, they will sometimes have to put pressure on the operational levels or the risk that the employees will revert to the old habits will grow.

The management team must be able to develop change strategies which will allow the organization to align itself easy to the change process and the only way of accomplishing this goal is to clearly understand why should the employees take part at the change process and present this in an attractive and persuasive way.

These are the reasons why it's often said that projects which involve change management are actually the most difficult projects to handle by the project management team. The human factor is essential in change management and the only way to achieve success in such a project is to identify some key-factors that will grant the project members cooperation and the project's success:

- Identifying the most common reasons for change management and their source
- Identifying ways to overcome the resistance to change
- Applying the change management principles and procedures to insure the creation of a valid project management environment

Once these key-factors were identified the departmental and human resistance can be overcome and the

project can be implemented.

#### **4. Strategic planning and risk management**

At the beginning of each project the project manager and his team are making a risk analysis. This step of the project strategic planning is crucial for identifying the main problems, which may occur during the completion of the milestones.

##### **4.1. Strategic planning**

Strategic planning is the process of identification and implementation of procedures within an organization in order to achieve its future direction in a dynamic environment, being a key-process for the company's adaptability capability. The resulting policies and procedures are top-down applicable to all organisational levels.

The main goal of an organization is to supply competitive services or products, being responsive to the customer demands and flexible in the environment where it operates. By achieving these goals the company is able to survive on a long run. A good understanding of the market demands and a precise formulation of the future path of the company are crucial components of the strategic planning kick-off.

The formulation process is always the responsibility of the top-management and its outputs will be transferred in form of a plan to the middle management. The middle management is responsible with the implementation of the strategic planning, the second phase, which presumes a very good understanding of the economic environment, market position, opportunities, threats, company weaknesses and strength.

Project management comes here in play as a planning, analyse and implementation tool to help middle management achieve the goals. Because the implementation process involves all the management and functional company levels, the middle management has to integrate the new procedures and policies and achieve a efficient, smooth fulfilment of its task.

Integration management is one of the main competencies of a project management team. Their main objective is to develop an implementation methodology that will provide the organisation with consistency of their actions in the execution phase. The project management tools used to achieve this goal are as follows:

- Functional & Management Baselines
- Project Definition Process
- Technical Baseline
- Financial Baseline & Metrics (identifies how the costs will be analysed, variances explained and how will the reporting be done)
- Technical Specifications
- WBS – Work Breakdown Structure
- Schedules
- Spending Curve
- Resumes (of the involved project members)
- Policies and Procedures
- The organization for the Project
- RAMs – Responsibility Assignment matrices

One other benefit of the strategic planning is that it provides standardized and unitary communication tools across the organizational levels, between functional units but also on a vertical loop (top-down / bottom-up).

By offering good communication tools, the strategic planning process will offer each organizational level a better information flow, making each 'actor' aware of the reason for change, eliminating the fear of unknown and reducing the employees' reluctance to change.

The last and probably the most important advantage is relate to the way the planning is done, always based on simple and logical processes. The methodology must be clear and all actions presented must be based on a logical decision-making process, with a clear understanding of the objectives.

A long-term continuously applied strategic planning management methodology will affect the



profitability of the company and provide a competitive advantage for the organization, serving the direct interests of the stakeholders (shareholders, employees, creditors, suppliers). A well-developed senior project management methodology will specify the means of addressing the stakeholders and which climate should best describe this environment.

In the strategic planning process the project team will have to pay extra attention to the economic environment and how will it affect the course of the project by considering indicators like inflation, *cost of capital* (what are the involved costs to solve a potential temporary cash flow problem), *forward pricing rates* (what will be the costs trend over the next years) and *quality of cost estimates* (how accurate are the estimates).

The *critical success factors* for strategic planning for project management are a sum of all those actions that must be performed in order to achieve the long-term goals and the inability to accomplish all of these factors will most likely result in a negative effect on the company's strategic position on the market.

Based on previous implementation experience the most common problems that the project team will encounter are:

- There's scope creep in every project and no way to avoid it.
- Completion dates are set before project scope and requirements have been agreed upon.
- Detailed project plans identifying all of the project's activities, tasks, and subtasks are not available.
- Projects emphasize deadlines. We should emphasize milestones and quality and not time.
- Senior managers don't always allow us to use pure project management techniques. Too many of them are still date driven instead of requirements driven. Original target dates should be used only for broad planning.
- Project management techniques from the 1960s are still being used on most projects. (*Strategic planning for project management using a project management maturity model, USA 2009, by John Wiley*)

## 4.2. Risk analysis

The scope of the risk analysis is not only to identify the potential situations, which will affect the implementation process and setbacks on achieving the goals, but also to create specific action-plans and procedures that will eliminate/diminish the effects of the factors.

Obviously the team will not be able to identify all the risks and situations that may occur and, more than that, the history shows us that some of the important risks will be anticipated but not considered. There are also problems that will occur simply from misconception and the main cause for this behaviour is to consider that all problems have only one cure. A good project management strategic planning and risk analysis cannot guarantee the success of the project and a smooth implementation road, but it can level the bumps on the way, making the decision-taking process easier and safer.

### 4.2.1. Risk Treatment

Once the risk identification phase is completed the project team will have to determine what are the correct actions and responses to be taken in order to minimize the overall risk exposure for the identified risks. It is obvious that unless the correct actions are taken to treat the risk, the entire risk assessment process has been wasted. The risk treatment process practically converts all the identified risks in the risk analysis phase of the project into practical actions and schemes which will eliminate, minimize or redirect the risk effects.

The project risks prioritization will be made based on a sum of ratings allocated during the risk analysis phase of the project. The risk classification is usually made as follows:

- **Extreme Risk.** The project team will have to focus on avoiding this risk category, if possible. If there are no options to avoid this risks completely, the project management team will have to focus on reducing the likelihood of the risk occurrence, reducing its impact on the project or to transfer / share the residual risk
- **Problems** are risks with a high likelihood to happen but characterized by a low impact on the project. In order to address this risk category the management will usually improve the work procedures and

- try to eliminate or reduce its frequency.
- **Catastrophes** are those risks which have a low likelihood but high impact on the project. This risk category is usually addressed by transferring the risk to insurance companies and the development of crisis management plans.
- **Routine** risk category are risks that will be managed on-the-spot, usually with a moderate impact and a random occurrence.

The next step after the risk identification and classification is to develop a general plan to address these risks. Such a plan will consider offering general responses for some of the risk categories and specific responses, depending on the risk type. Usually the extreme, high and medium risks will be especially addressed by the project team, using tools like brainstorming, previous experience and knowledge, evaluation of past projects. This review will have as output a list of **responses to risk**. For particular risks with a high impact on the project and medium-high likelihood the project team will usually describe in detail the actions to be taken and when would be the best appropriate time to react so that the effects are minimized. These responses are chosen from a list of potential actions after a trade-off between the project members, considering the involved action cost. For each action plan and options list it is recommended that the project management team considers a benefit-cost analysis. They will have to provide the team members a list of trigger-points for the actions and, if necessary, a follow up procedure which will insure that the reaction has minimized the impact or the residual risk is under control.

In order to be able to create a good risk treatment plan we have to take into account a sum of factors as follows:

- we have to categorize our risks depending on their impact on the project (e.g. extreme, high, medium risk)
- we have to evaluate and assign our options ‘in case of...’
- evaluate what are the costs, benefits and downside for each option
- select optimal options for the project according to the previous analysis and develop the detailed Risk Action Plan
- Make sure you have allocated extra needed resources (human, technical, budget...) in order to be able to sustain your Risk Action Plan

#### 4.2.2 Risk Action Plan

The main purpose of the Risk Action Plan is to point out available actions / options for each major risk of the project, to document in detail what are the risks, available action plans to suppress the effect of each risk and what are the effects of each action plan.

Each action will affect one of the three key project coordinates: cost, schedule or scope. The detailed action plan should point out the effects of each response, so that the project team is aware of the impact of their actions over the project. Trade-offs will be in this case required.

The risk action plan is part of the project plans and has to be integrated with the company’s management procedures and policies. This plan will be managed exactly as any other project activity and has to be correlated with the existing procedures for budgeting, resource allocation, project, asset, health, insurance, environmental and human resources management or any other existing internal procedures and policies.

#### 4.2.3 Risk Treatment Strategies

The project team will be able to choose the best risk treatment strategy only if they can rely on a detailed analysis over the impact of each option on the organization. If the risk occurred they have to be aware of the potential benefits and costs of each action that will potentially reduce the risk impact, including the direct and indirect costs and effects of potential delays or supplemental resource allocation.

Generally speaking the risk treatment strategies are developed based on each type of project. Though it is impossible to develop a general applicable risk treatment plan for every project the major guidelines and strategies have to consider the risk prevention / avoidance, impact mitigation, risk sharing, risk insurance and risk retention. By correctly identifying these risk / response categories the organization is able to determine at what level is it prepared to tolerate risk and based on their corporate culture and internal policies the senior

management can decide together with the project manager how far these action should be combined to be implemented in the project frame.

In order to eliminate / reduce the risk sources the project team will need to develop prevention strategies. The main available tools for risk prevention consist of alternative approaches, improvement of the policies, procedural changes, better training for the project team members, detailed process planning, protective systems development, quality assurance procedures, regular audits and control procedures.

By risk avoidance the project team is expected to identify unaccepted risks in the project and develop the project plan accordingly, so that these particular undesired risks are completely avoided.

The risk analysis is usually part of the contract and risk avoidance measures are usually included in the contract, together with the countermeasures. By considering these elements as part of the contract the project involved parties will get a general feel on the potential risk factors and be able to agree on the level of risk sharing.

Some particular risks cannot be avoided, especially those risks resulting from external factors as weather conditions or economic environment.

Impact mitigation deals with the prevention strategies to diminish the impact of these risks on the project, ensuring that consequences on the organization will be minimized.

Some of the most important components of the impact mitigation is contingency planning, crisis management and disaster recovery plans. These strategies are not creating new risk prevention responses, as in the previous project phase, as they are based on the results of the previous analysis. Insurance is one of the most commonly used impact mitigation strategy, as it is transferring the risk factors to a third party.

Risk transfer usually impacts the project costs. The basic principle of risk sharing is that risks should be handled in a project by that party which is capable of best managing and controlling the risk. Contracts are the main tool to allocate risks and share them between project members. Sharing the risk with a third party (e.g. supplier) does not necessarily transfer this risk completely and does also not necessarily eliminate this risk. It may happen that the risk still occurs but the responsibility is transferred to the contractor, transforming it into a 'contractor performance' failure. Here comes in play the ability of the contractor to manage and suppress risk. If the contractor does not have a risk management plan in place or a limited ability to manage risks it is likely that supplemental risks will result, leading the project to a crisis situation. The risk assessment phase is the main tool to identify which party of the contract is better at managing risks and based on this analysis the project team will be able to develop a risk sharing plan which will be included in the contract. A proper analysis will identify the risk consequences and help minimizing the costs for taking the risks.

Insurance is one of the most used and well-known risk sharing strategies and it usually addresses physical assets and some commercial risks, those risks that have a low probability but great impact on the project.

Risk retention addresses those risks that cannot be transferred or shared. This risk category will be extensively analysed by the organization and a detailed risk management plan must be developed in order to minimize the effects of these events. The project management team will have to be able to supply the senior management with a comprehensive and feasible action plan for such risks and a detailed analysis on their impact on the project. The project management team have to take particular care to implement retained risk prevention and control strategies to ensure that the residual risk remaining will be kept at an acceptable level.

## **5. Conclusions**

What is success? When is a project considered successful?

One of the challenges of the project team, besides identifying the risks and reaction plans, is to set up the Project's KPI's (Key Performance Indicators). The key performance indicators will be used to evaluate the project management implementation process. Once these indicators are identified and set, obviously together with the customer, we have created a way to measure the project's success.

A big problem in project implementation and success measurement comes from the next simple question: 'When is our project considered successful and what do we mean by success?'. Is a project successful when at it's completion we have achieved 90% to 100% of the goals? Is it successful if the goals were only 60%

met but the customer is satisfied and wants to develop new projects with the company and the project management team? The answer for these questions is simple: the managers and customers usually set unachievable targets (80%-90% success) and, more than that, the success is perceived relatively to each involved party's expectations and feelings. It might be the case when the success of the project, measured in relation with the planning, initial scope and KPI's has a rate of 60% but the customer is more than satisfied. It usually happens so when the project team has set an initial project scope and, even though this initial scope was not achieved, another parallel and not forecasted scope was the output.

As we can see, project management does not guarantee success or scope achievement but it will offer tools to plan, forecast, manage, control and evaluate the projects. Project managers will supply detailed project documentation, extensive and comprehensive detailed documentation on each project phase, including several reaction options in relation to each type of risk and a deep insight on the effects, based on a rigorous cost-benefit analysis.

## 6. References

Project risk management is a topic of major current interest. Many government agencies and most of the professional project management associations around the world are actively addressing it, and many relevant standards are existent or being developed. Some examples from the many approaches in use include:

- Project Management Institute (PMI), USA (2011), *Project Management Body of Knowledge*
- Association for Project Management, UK (1997), *PRAM Guide*;
- AS/NZS 4360 (2004), *Risk Management*, Standards Association of Australia;
- IEC 62198 (2001), *Project Risk Management—Application Guidelines*;
- Office of Government Commerce (OGC), UK (2002), *Management of Risk*; and
- Treasury Board of Canada (2001), *Integrated Risk Management Framework*.
- *The Changing Environment of Business A Managerial Approach*, 4th Ed., by G. Starling © 1995.

# TAX CULTURE AS DETERMINANT OF TAX COMPLIANCE. THE CASE OF ROMANIA

**DONATH Liliana**

*Professor, Ph.D./ Faculty of Economics and Business Administration/ Finance Department, West University of Timisoara, Romania*

**BIZOI Alexandra Codruța**

*Ph.D. Student/, Faculty of Economics and Business Administration/ Finance Department, West University of Timisoara, Romania*

**SEULEAN Victoria**

*Professor, Ph.D./ Faculty of Economics and Business Administration/ Finance Department, West University of Timisoara, Romania, e-mail: victoriaseulean@yahoo.com.*

**Abstract:** *Based on interdisciplinary approach, the paper introduces a number of more subjective determinants combining the historical, political, sociological and economical factors, which shape the taxpayers' behaviour. The paper presents the results of a comparative study regarding the determinants of taxpayers' behaviour among the European countries, between 2007 and 2012. Besides the economic determinants, tax compliance is strongly influenced cultural and psychological factors. The authors conclude that tax compliance is a prerequisite of economic performance and therefore, all the determinants, objective or subjective of elements which trigger compliance or non-compliance should be more carefully analysed by the competent authorities.*

**Key words:** Tax culture, behavioural, tax compliance

**JEL classification:** H 300, H 310, H 320, Z 180.

## 1. Introduction

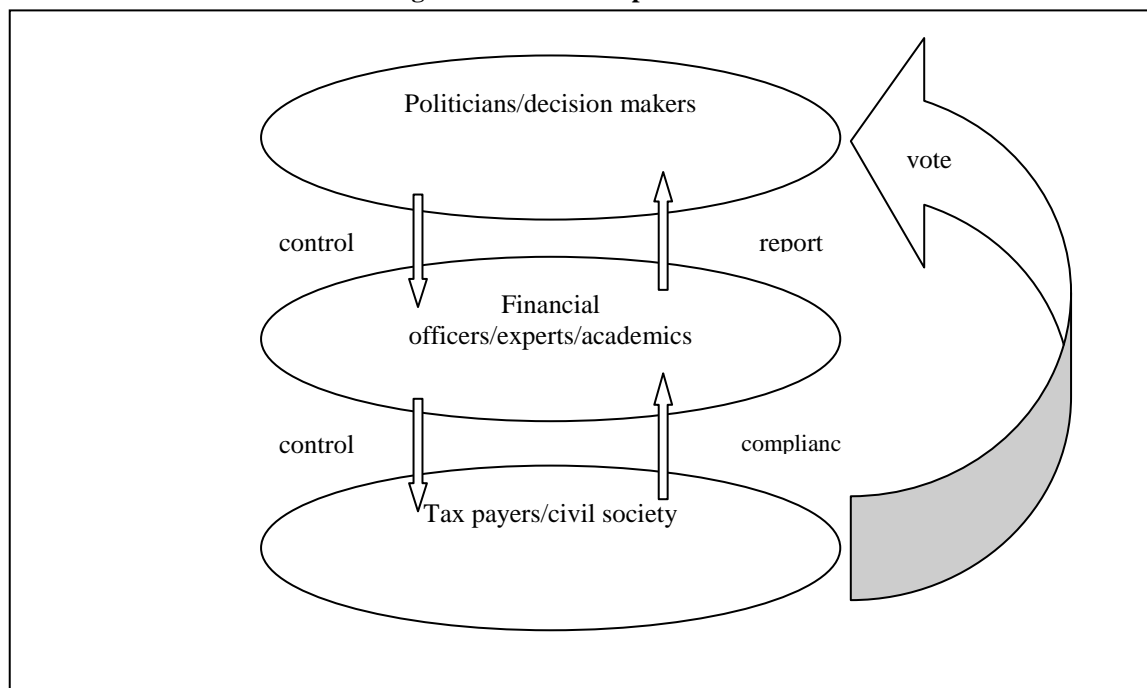
“Tax culture” is awarded multiple meanings. However, most commonly, it is referred to as: “the way of life, especially the general customs and beliefs, of a particular group of people at a particular time” (Cambridge Online Dictionary, 2011). Based on living standards, customs and beliefs, people form groups, sharing the same way of thinking and acting separating them from others that think and act differently, leading to “cultural blocks”. These blocks practically frame the degree of conformity of thought and action in different areas of human life: economy, politics, language, religion. The authors consider that new cultural blocks could arise under the present circumstances shaped by globalisation, based on mutual perceptions on morale and tax compliance, being an integrating factor of the national tax culture considered as: “the entirety of all relevant formal and informal institutions connected with the national tax system and its practical execution, including the dependencies and ties caused by their ongoing interaction” (Nerré, B., 2004). The topic of “tax culture” is neither widespread nor commonly accepted in the academic or the collective mind, therefore a definition consistent with the specific characteristics of each tax system would be useful. In so far, a considerable number of studies on tax compliance have been published, but only few embraced an interdisciplinary approach. The authors consider that the concept could be better portrayed with an approach combining the historical, political, sociological and economical factors. In Romania, tax culture is an unfamiliar concept with limited connotations. According to the “Doing Business” study, considering three major tax issues, i.e. the number of required payments, time to comply and Total Tax Rate, Romania finds itself on the last position in the EU. Using the questionnaire method, the authors have found that Romanian taxpayers have limited knowledge on the tax system, under-evaluate the time consuming necessary paper work to comply and, generally, find the tax procedures complicated and numerous. Starting from the objective, rational determinants, the authors try to introduce a number of more subjective determinants which shape the Romanian taxpayers' behaviour, such as religion and the experience of democracy, or of the lack of it. Presently, the tax authorities in Romania focus more on the concept of tax performance, but do not widely consider the underlying factors. The paper concludes that tax compliance is a prerequisite of economic

performance and the elements which trigger compliance of non-compliance should be more carefully analysed.

## 2. Tax culture

Traditionally, tax culture referred to the decision making process, ignoring tax payers' compliance. In time, it was acknowledged that it is a complex concept embedding economical, sociological and historical features. It is often used to explain tax payers' behaviour as well as the diversity of economies from a fiscal point of view in the context of each economy. (Nerre, 2004). Tax culture is connected to tax moral and tax discipline, both relating to taxation authorities and tax payers as well. Consequently, tax culture has a broader meaning than "culture of taxation" "taxpaying culture". Figure no.1 shows how tax culture is incorporated in the overall taxation policy. It is based on public corporate governance principles: *transparency, accountability and credibility*. All parts involved: politicians, decision makers, tax payers, financial officers, experts, academics, etc. are, eventually, responsible for the shaping of a nation's tax culture.

Figure no.1: Tax compliance and tax culture



## 3. Behavioural determinants of tax compliance

### 3.1. Tax compliance social norms

Despite the complexity of the tax legislation, *ceteris paribus*, usually, taxpayers comply, by paying the required amounts without trying to understand taxation mechanisms. But, in exchange for their payment, they eagerly try to understand how the collected funds are spent and on what purposes, especially when public expenditure are contested or new taxes apply. They evaluate the fiscal policy and the tax burden, but also the relations between the policy makers and the society. According to the outcome of overall perception, the social representation and the compliance behaviour of a nation are shaped. These findings are based on Durkheim's theory of „collective representations” which explains attitudes, norms and values, stereotypes, competences and myths. Collective representations also frame the variables that can be considered as determinants of the tax compliance at the individual and societal levels. *At individual level*, subjective perceptions over taxation and compliance, like attitudes and behaviour, are part of the social representation. *At societal level*, compliance determinants like ethics, values, norms, moral duty, culture, etc. do not result from aggregating the individual perceptions, but result from a holistic outcome complex mix of factors: economical, historical, tradition, culture, customs and habits.

Often, tax authorities are aware of the problems that hinder compliance, trying to simplify the legislation in order to gain the public's support for the changes they intend to make. Unfortunately, policy makers often fail to follow the "keep it simple" principle, thus inducing confusion concerning the provisions of the law, mistrust and lower compliance.

On the other hand, education is an important determinant of tax compliance, a number of studies using education and taxation literacy as a proxy to demonstrate that there is a strong connection between the level of education, studies and compliance. Moreover, tax authorities endeavouring to support the tax payers in understanding the requirements of the law (Kinsey, K. A., Grasmick, H. G., 1993; Song, Y.-D.).

While people understand the necessity to contribute to the funding of public goods, they often question their relationship with the public authorities considering that the latter use public funds effectively causing deficits. Negative feelings consider taxes as a restriction of their economic freedom.

### **3.2. Tax payers' attitude and norms**

**a) Attitudes.** "Attitude" refers to a behavioural tendency that to evaluate a certain particular situation in a positive or negative manner (Eagly, A. H., Chaiken, S., 1993). The literature gives different definitions of attitude, focusing on the cognitive or behavioural sides.

Referring to tax payers' behaviour, attitudes may reflect:

- Emotional responses that reveal the preference for a certain object or entity, i.e.: citizens' feelings towards different types of taxes, towards their cooperation with the state, the feelings towards the effect of taxes on their income, towards the public expenditure, etc.);
- Behavioural responses that are intentions and actions in connection, for example, with the fiscal legislation gaps;
- Cognitive responses, meaning the rational evaluation of an entity or situation (e.g. the belief that taxes are either useful, being used to funding public goods, or are a waste of money).

Even if authorities and tax evaluations, based on attitudes, are distinct from tax compliance, both show relevant aspects concerning the ability of responses of the community. The social representations of the taxation authorities and taxes, per se, but also the attitudes are important within the tax payer – tax authority mutual acceptance of undertaken measures.

**b) Norms.** Besides attitudes, the normative system has been broadly discussed in literature. Compared to the interpretation of attitudes as determinants of tax compliance, the interpretation of norms is even more heterogeneous. Wenzel considers that there is an overlapping of perceived personal attitude, of the values and fiscal ethics of an individual defined as the conviction that there is an imperative moral citizens should comply with. (Wenzel, M., 2005b).

**b1. Personal norms.** Various authors consider that fiscal ethics is connected to personality determinants like: moral judgement, authoritarianism, Machiavellism, selfishness, dependency towards norms and values. Since there is no clear distinction of these terms, the issue arises only when we endeavour to measure these dimensions. In modern psychology there are five determinants of personality, that impact on tax compliance: Sincerity or the intellect, consciousness, extroversion, sympathy, emotional stability. A high personal ethic and even availability to comply can be related to the dependency of norms, selflessness, religious beliefs, political preferences. Moral consciousness is the one that helps boosting the fiscal ethics through interpersonal communication, values and standards approved by the society and/or imposed by the authorities.

Among personal norms, *honesty* is a determinant of tax compliance and so are religious beliefs and moral consciousness. Personal norms of an individual are stronger if the tax payer anticipates the sense of guilt and shame in case he/she disregards or violates a fiscal norm. This sense of guilt or of shame may trigger the payment of taxes. When guilt or shame threatens the ethical identity of an individual, the management of these feelings becomes very important in shaping the taxpayers compliance attitude. (Ahmed, E., 2004).

**b2. Social norms.** The social norms are defined as a behavioural model that is played in a similar way by all the members of a group or community and therefore widely accepted or refused. Tax payers that perceive their fellow citizens as having an adequate behaviour will adopt mutual social norms and will behave accordingly (Alm, J., McClelland, G.H., Schulze, W.D., 1992).

**b3. Institutional norms.** Besides personal and social norms, tax compliance greatly relies on cultural and institutional norms. Schmoelders emphasises that tax compliance is a behavioural issue, and the success in collecting taxes relies mainly on cooperation (Schmoelders, G., 1970b).

The importance of societal norms underlines the importance of the relationship between citizens and authorities as well as the importance of trust in the public decision makers based on cooperation.

### 3.3 Fairness - characteristics of the taxpayers' axiological system

Fairness is generally attached to the behaviour of tax authorities (Braithwaite, V, 2003b; Rawlings, G., 2003; Taylor, N., 2003). Wenzel (2003) studied tax justice and fairness based on the concepts provided by the research in the psycho- social justice field.

The taxpayers will adopt a behaviour that is similar to that acknowledged by society. If the majority of citizens chose not to comply than an individual, following the trends of the society will tend to evade taxes.

The connection between social norms and tax compliance is complex and therefore researchers tend to emphasise the importance of personal norms in explaining compliance and rather ignoring social norms. Nevertheless, starting from the self categorising theory, Wenzel shows that the impact of social norms is influenced by the attachment of an individual to a group of reference. If a taxpayer thinks that compliance is widely perceived as a virtue by the society that condemns evasion he/she tends to comply

## 4. Tax moral

### 4.1. Tax moral concept

As discussed earlier, the propensity towards compliance depends on the subjective perception of taxation and the fiscal education of the citizens. It is also influenced by rumors and other people's subjective interpretation of the law. Valerie Braithwaite (Braithwaite, V., 2003a), defines as „motivational position” the aggregated subjective perceptions, shared beliefs and evaluations (table 1.).

*Tabel no. 1. Motivational positions (Braithwaite, V., 2003a, p.20)*

Motivational position	Description	Possible statements for sustainig motivational position
Commitment	A mix of positive attitude towards authorities and respect. The fiscal system is perceived as a desirable one, the legislation and the ctax collection are fair. Taxpayers are committed to pay their debts, feeling morally obliged to act in the interest of the community.	The tax payment is a correct way to act.  There is a moral duty to pay taxes..  Overall, taxes are paid voluntarily.
Capitulation	Capitulation means a positive orientation to accept the legal power of the authorities and to act in the interest of the community.	If the tax payer cooperates with the authorities than it is possible that they might cooperate as well. It is possible the the tax system is not a perfect one but is fair for the majority of tax payers. It is not important how cooperative are the authorities, the best attitude is for the payer to cooperate with them.
Resistance	Reflects a negative orientation and defiance. The authority of tax agencies is questioned; their activity considered rather dominating than supportive.	If one doesn't cooperate with the tax authorities than they will act sternly.  It is important not to be intimidated. It is imposible to entirely please tax authorities.
Disengagement	It is a negative attitude. Individuals and groups keep the distance; they have passed over the challanges of tax authorities.	If one cannot provide the information required by the tax authorities, he/she will not bother to correct it.



		One doesn't care that he/she is not doing the right thing. If the authorities adopt a tough approach the tax payer will refuse to cooperate.
Game playing	Game playing is a type of behaviour that regards legislation as something that can be shaped in such a manner as to support the one's targets and not a set of rules that must be obeyed by anyone. Taxpayers look up for the law weaknesses in order to exploit them in their favour and consider tax agents as policemen that must chase non complying citizens.	One likes to spend the time looking for the legal changes that would affect the tax payers. One likes to play with the grey areas of the legislation.

*Recently, the tax compliance issue was often analysed starting from the tax moral concept. At the level of the society, the concept implies a collective (intrinsic) motivation to comply. There are multiple and complex reasons for which taxpayers comply and therefore there are not unanimous opinions.*

A number of researchers consider tax moral as an intrinsic motivation to pay the lawful taxes that can explain compliance (Lewis, A., 1982; Alm, J., McClelland, G.H., Schulze, W.D., 1992, 1999; Pommerehne, W. W., Hart, A., Frey, B. S., 1997, 2003; Frey, S.B., Feld, L.P., 2002; Braithwaite, V., Ahmed, E., 2005). Frey and Alm, but also Torgler define tax moral as an intrinsic motivation to pay taxes while Orviska și Hudson relate the concept to the civic sense. People that prove a deep civic sense are not inclined only to maximise their wellbeing but are responsible and loyal towards the society and the nation. Even if the system accepts non compliance, responsible citizens cooperate with the tax authorities. Their behaviour is not shaped by audits and sanctions, but by their preoccupation for the society. (Frey, B.S., 1997; Alm, J., Torgler, B., 2006; Orviska, M., Hudson, J., 2002). In addition, tax moral is an important determinant of businesses and of economic development. By using the estimated values of the underground economy, a linear correlation between moral and the hidden economy was developed, showing an important covariation. Other researchers consider that an important part of taxpayers is not inclined towards evasion and do not seek any means to fraud taxes. (Long, S. B., Swingen, J. A., 1991).

#### **4.2. Tax moral determinants**

The most important variables that determine tax moral are:

##### **I. The socio demographic and socio economic variables, such as:**

##### **a. Age, sex and education**

The literature that investigates the socio demographic determinants of tax compliance cites mostly social psychologists. Tittle considers that elderly people are more sensitive to sanctions since during their lives they have acquired wealth, status, a considerable dependency on other people's reactions, etc.), that induces a more intense perception of the cost of sanctions. (Tittle, C., 1980).

An older age is generally correlated with a higher tax moral and compliance. In the same time it is shown that women are more compliant than men but develop less self confidence.

Education plays an important part in the propensity of taxpayers to study the legislation, thus being aware of the benefits that the government provide and being able to better evaluate the relationship between the citizens and the state (Lewis, A., 1982). But, on the other hand, these taxpayers are also aware of the government's waste of public money. Their educational stance might allow them to take advantage of the possibilities to evade and to be more critical to the way public money is spent.

##### **b. Marital status, labour status, economic status and religiosity**

Tittle considers that the marital status influences the legal or illegal behaviour, according to the social stance of an individual (Tittle, C., 1980), that could affect his/her tax moral. But, this variable could interact with the provisions of the tax system. Differences in the tax moral could be induced by the fiscal provisions applicable for married individuals and for the unmarried ones. There is a tendency that married taxpayers to show a higher tax moral as compared to the single ones, but this observation may vary according to the cultural commitments of the community (Torgler, B., 2003). The labour status can be attentively analysed since there may be a difference of behaviour between individuals that are employed or self employed. It seems that often the latter show a lower propensity to comply, especially in emerging economies given the

cultural shocks (the collapse of former institutions, the social costs, sharp increase of income inequalities, high poverty rates), on one hand and the higher costs of compliance on the other hand.

It seems that the repercussion effect of taxation on tax moral is difficult to evaluate, depending on the propensity towards risks, the taxation rates (flat, progressive, regressive) etc. therefore, it seems that there is a two-sided effect of incomes on tax moral. By correlating the after-tax income with tax evasion it can be proven that in progressive tax systems, taxpayers with higher incomes perceive a higher utility through evasion while taxpayers with lower incomes and "social stake" are less inclined towards taking such risks (Jackson, B., Milliron, V. C., 1986). According to statistics, higher incomes are strongly correlated with a lower tax moral, while lower incomes lead to a higher tax moral.

Religiosity can be considered as an intrinsic trigger that leads individuals towards certain behaviour. This characteristic induces thinking stereotypes that could inhibit illegal behaviour, rather supporting social values (Hirschi, T., Stark, R., 1969).

### **c. Trust and national pride**

Trust is a result of a clear fiscal policy. By inducing trust at constitutional level but also at political and economical level, irrespective of the cultural environment such a strategy has a positive effect on tax moral. The credibility of the government, of the legal and juridical and tax administration may determine a better compliance and an honest behaviour. The social contract between taxpayers and tax authorities can be maintained through positive actions, well functioning institutions and a positive social environment. According to various studies, trust plays an important part in emerging economies towards the restoration of a complying behaviour and moral.

## **II. Discouraging actions, perceptions, fiscal system and tax authorities**

Discouragement actions are not effective when compliance is in question. Such an action tool cannot be used anymore for improving tax payments, decision makers preferring to focus on consensus between citizens and tax authorities. Consequently, following an audit, individuals are not supposed to improve their compliance. Any fiscal policy must maintain a social capital standard supporting a high voluntary compliance. Tax evasion shows that the intrinsic motivation to comply is low, citizens considering that an opportunistic behaviour is acceptable and that the moral non-complying costs decrease. But if honesty, fairness, politeness are the acknowledged characteristics of tax administration that treats taxpayers as partners and not as inferiors in a hierarchical system, then citizens are more inclined to a voluntary tax compliance.

## **5. Tax moral in the European Union**

One of the few studies analysing tax moral was conducted by Struempel on a number of European countries. Pommerehne and Frey, and Frey and Weck-Hannemann have set up an index of "tax immorality", based on questionnaire collected data in 1960, 1965, 1970, 1975 and 1978 (Weck, H., Pommerehne, W. W., Frey, B. S., 1984; Frey, B. S., Weck-Hannemann, H., 1984). The main findings are given in table no.2. To notice that such studies are conducted at rather long intervals, since, on one hand, they are costly and, on the other hand, behaviour changes over a long time. Tabel no.2 The evolution of taxation immorality

Country	1960	1965	1970	1975	1978	1960-1978
Austria	5,5	6,7	9,0	10,6	10,9	5,4
Belgium	7,1	8,6	11,6	13,7	14,0	6,9
Denmark	2,2	2,7	3,6	4,2	4,4	2,2
West Germany	5,5	6,7	9,0	10,6	10,9	5,4
Finland	2,2	2,7	3,6	4,2	4,4	2,2
France	8,7	10,6	14,3	16,9	17,3	8,6
Ireland	3,8	4,7	6,3	7,4	7,6	3,8
Italy	10,4	12,6	17,0	20,1	20,6	10,2
United Kingdom	2,2	2,7	3,6	4,2	4,4	2,2
Norway	2,2	2,7	3,6	4,2	4,4	2,2
Netherlands	5,5	6,7	9,0	10,6	10,9	5,4
Sweden	2,2	2,7	3,6	4,2	4,4	2,2
Spain	7,1	8,6	11,6	13,7	14,0	6,9

Source: Weck, 1983, p. 134

As results show, over time, there are strong disparities among the considered countries. Latin countries (France, Italy, and Spain) exhibit a higher tax immorality than other countries. Benno Torgler extends the cross border study by using WVS (World Value Survey ) data (1981-1984, 1990-1993 și 1995-1997). WVS allows crossborder dynamic comparisons in more than 40 nations including more than 70% of the world population, covering a wide range of religions and cultures. From this perspective, the incentive to deceive or mislead can be regarded as dichotomic: people decide to, either evade taxation or pay their debts and, if they are determined to elude taxation, then decide on the amount of their income that will not be declared as taxable (Bosco, L., Mittone, L., 1997).

As shown in Table no.3, a decline in the tax moral is to be noticed in the former communist countries after 1990 given the cultural shocks that have occurred and the lack of formal discipline.

One of the disadvantages of the WVS data base is that not all the countries provide the necessary data and therefore comparisons are difficult to make.

*Tabel no.3 The tax moral in the European emerging countries during transition (%)*

<b>Countries</b>	<b>1990-1993</b>	<b>1995-1997</b>
<i>Former USSR countries</i>		
Estonia	64,6	42,4
Latvia	64,4	31,3
Lithuania	57,0	46,1
<b>Media</b>	<b>62</b>	<b>39,9</b>
<i>Former CEE countries</i>		
Bulgaria	57,4	65,3
Poland	49,3	55,2
Romania	67,7	
Slovenia	68,5	53,9
Hungary	56,3	
<b>Media</b>	<b>59,84</b>	<b>-</b>

Source: Apud, Torgler, 2003, p. 162, pe baza datelor WVS

Tax morality can be related to the dimension of the underground economy. A limitation of this analysis is given by the availability of data concerning the estimation of the hidden economy.

A correlation between the tax moral and the hidden economy is given in Torgler's study, but it cannot fully demonstrate the connection between causes and effects for which a multi variable regression would be more appropriate. Table no.4 shows the results considering WVS data:

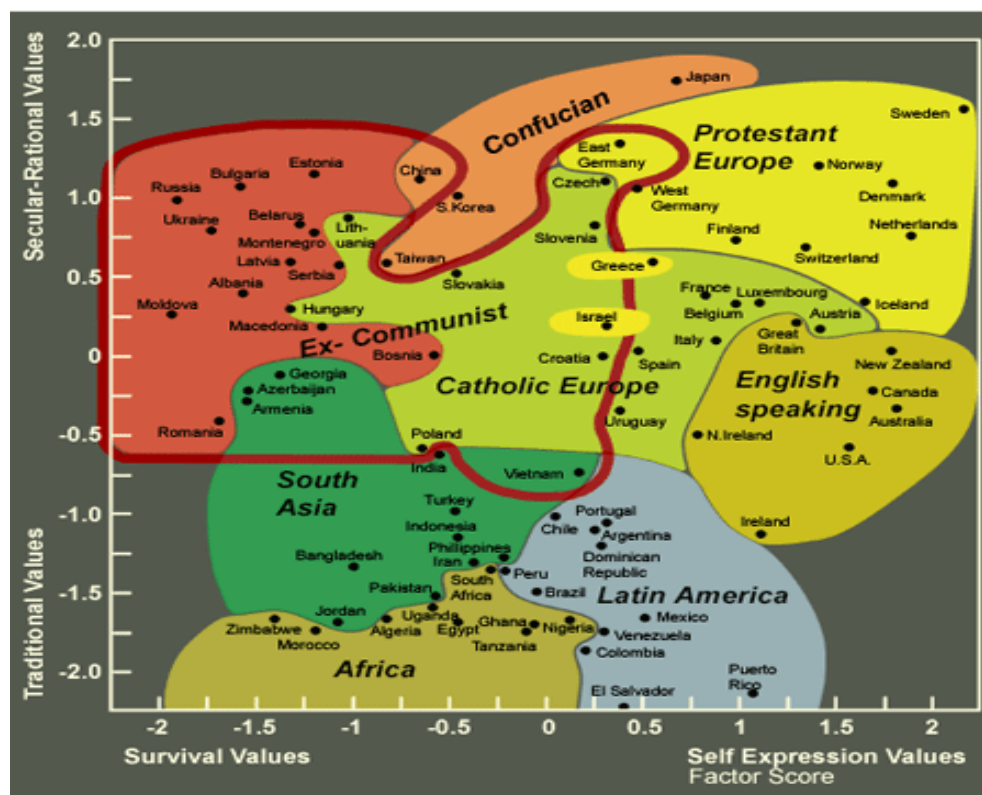
*Tabel no.4 Tax moral (1995-1997) and the hidden economy (1994-1997)*

<b>Countries</b>	<b>Tax moral (%)</b>	<b>Hidden economy (%)</b>
	<b>1995-1997</b>	<b>Average 1994-1997</b>
Austria	62,1	13,9
Bulgaria	65,3	33,9
Estonia	42,4	27,8
Germany	46,9	14,2
Latvia	31,3	39,1
Lithuania	46,1	36,1
Norway	47,5	18,8
Poland	55,2	19,9
Slovenia	53,9	24,0
Spain	69,5	22,7
Sweden	49,3	19,1

Source: Apud Torgler, 2003, p. 165

Besides the economic determinants, compliance is strongly influenced by psychology. As already mentioned the paper concentrates on the behavioural determinants of compliance. Literature identifies and describes in a cultural map a number of cultural blocks spread worldwide. This map shows that there is a set of mutually shared values strongly correlated. According to Inglehart și Welzel the cultural map shows the shared values of various countries, as described in Figure no.2

Figure no.2 The cultural map of the world



Thus, the majority of the countries consider non compliance as as unjustifiable. For example, in Spain 64.8% of citizens consider non compliance as intolerable, followed by Italy 61,5% and the Netherlands 61,1%, France 47,9%.

According to literature, it seems that the religious education is important in shaping compliance. For instance, in France, the highest compliance is among Protestants (60.30%), Muslim (54.5%), and Catholic (48.4%). In Great Britain 61.1% of Protestants comply, followed by Catholics (64.5%). In the Netherlands the highest percentage of compliance is among Catholics (64.5%), closely followed by Protestants (65.5%). In Sweden, those belonging to the Church of Sweden comply (53.3%), in Finland, Evangelists 57.5%, in Bulgaria 53,9% of Orthodox and 88.8% taxpayers of Muslims, etc.

It is interesting that in Slovenia 58.5% of taxpayers consider that non compliance is justifiable, irrespective of their religion (Catholic, Orthodox or Muslim).

In order to find out the Romanian tax behaviour, a questionnaire was handed out, the responses being summarised below:

Table no.5 The estimation of the Romanian taxpayers' behaviour

Statistical values					
	N	Minimum	Maximum	Average	Standard deviation
I am rather fearful than courageous	183	-2,00	2,00	1,1202	0,72383
I like to assume risks	177	-2,00	2,00	,7910	1,00923
I am rather faithful than unfaithful	178	-2,00	2,00	1,0562	0,82146
I am a moral person	183	2,00	4,00	3,4699	0,58170
I am disciplined	183	1,00	4,00	3,2240	0,66222
I am loyal	183	2,00	4,00	3,3060	0,60612
I appreciate honest work	185	1,00	4,00	3,3946	0,70013
I am an equitable person	185	1,00	4,00	3,2162	0,70461
I am involved in solving the my communities problems	183	1,00	4,00	2,5410	0,93009

Source: Authors questionnaire

## 6. Conclusions

In order to emphasise the economic determinants of tax behaviour a comparison between the main indicators, based on paying taxes available data, was conducted. These conclusions were complemented by the authors' study based on a questionnaire that was handed out to tax payers from Arad, Timis, Caras Severin and Mehedinti counties.

A brief analysis shows that Romania, with 89 tax payments, 198 hours required to pay the liabilities and a 48.9% tax burden is on the last place among the sampled countries and the last among the EU countries concerning the easiness of tax payments. The average amount of payments in the EU is 21.28%, requiring 264 hours to comply and a 50.44% tax burden. In 2007, prior to the crises, in Ireland there were 8 mandatory payments requiring 76 hours to comply and an average tax burden of 25.8%.

By studying the tax compliance determinants it seems that besides the economic determinants there is a wide range of psychological determinants that explain tax payers behaviour. They vary according to the cultural block a taxpayer belongs to. The shared values of taxpayers include educational, historical and religious determinants that strongly influence their behaviour towards the government requirements to comply.

## 7. References

- Ahmed, E., 2004. Validation of the 'Management of Shame State – Shame Acknowledgment and Shame Displacement' (MOSS-SASD) in the context of taxation. Unpublished manuscript. The Australian National University, Canberra, Australia.
- Eagly, A. H., Chaiken, S., 1993. The psychology of attitudes. Fort Worth, TX: Harcourt Brace
- Alm, J., McClelland, G.H., Schulze, W.D., 1992. Why do people pay taxes? Journal of Public Economics, 48, 21-38.
- Alm, J., Torgler, B., 2006. Culture differences and tax morale in the United States and in Europe. Journal of Economic Psychology, 27(2), 224–46.
- Bosco, L., Mittone, L., 1997. Tax Evasion and Moral Constraints: Some Experimental Evidence, *KYKLOS*. 50: 297-324
- Braithwaite, V., 2003b. A new approach to tax compliance. In V. Braithwaite (ed.), *Taxing democracy. Understanding tax avoidance and tax evasion* (pp. 1–11). Aldershot: Ashgate
- Braithwaite, V., 2003a. *Dancing with tax authorities: Motivational postures and noncompliant actions*. In V. Braithwaite (ed.), *Taxing democracy. Understanding tax avoidance and tax evasion* (pp. 15–39). Aldershot: Ashgate.
- Braithwaite, V., Ahmed, E., 2005. A threat to tax morale: The case of Australian higher education policy. *Journal of Economic Psychology*, 26(4), 523–40

- Bosco, L., Mittone, L., 1997. Tax Evasion and Moral Constraints: Some Experimental Evidence, *KYKLOS*. 50: 297-324.
- Frey, B. S., 1997. Not Just for The Money. An Economic Theory of Personal Motivation. Cheltenham: Edward Elgar.
- Frey, B. S., Weck-Hannemann, H., 1984. The Hidden Economy as an 'Unobserved' Variable, *European Economic Review*. 26: 33-53.
- Hirschi, T., Stark, R., 1969. Hellfire and Delinquency, *Social Problems*. 17: 202-213.
- Jackson, B., Milliron, V. C., 1986. Tax Compliance Research: Findings, Problems, and Prospects, *Journal of Accounting Literature*. 5: 125-165.
- Kinsey, K. A., Grasmick, H. G., 1993. Did the tax reform act of 1986 improve compliance? Three studies of pre- and post-TRA compliance attitudes. *Law and Policy*, 15(4), 239–325.
- Lewis, A., 1982. *The Psychology of Taxation*. Oxford: Martin Robertson.
- Nerré, B., 2004. Modelling Tax Culture. Paper prepared for the *European Public Choice Society Annual Meeting 2004*, Berlin, Germany, April 15-18, 2004
- Orviska, M., Hudson, J., 2002. Tax evasion, civic duty and the law abiding citizen. *European Journal of Political Economy*, 19(1), 83–102
- Pommerehne, W. W. , Hart, A., Frey, B. S., 1994. Tax Morale, Tax Evasion and the Choice of Policy Instruments in Different Political Systems, *Public Finance*. 49 (Supplement): 52-69.
- Rawlings, G., 2003. Cultural narratives of taxation and citizenship: Fairness, groups and globalisation, *Australian Journal of Social Issues*, 38(3), 269–306.
- Taylor, N., 2003. Understanding taxpayer attitudes through understanding taxpayer identities. In V. Braithwaite (ed.), *Taxing democracy. Understanding tax avoidance and evasion* (pp. 71–92). Aldershot: Ashgate.
- Tittle, C., 1980. *Sanctions and Social Deviance: The Question of Deterrence*. New York: Praeger
- Torgler, B., 2003. Tax morale: Theory and Empirical Analysis of Tax Compliance. PhD Thesis, University of Basel
- Weck, H., Pommerehne, W. W., Frey, B. S., 1984. *Schattenwirtschaft*. München: Franz Vahlen.
- Wenzel, M., 2003. *Tax compliance and the psychology of justice: Mapping the field*. In V. Braithwaite (ed.), *Taxing democracy: Understanding tax avoidance and evasion* (pp. 41–69). Aldershot: Ashgate.
- Welzel, C., Inglehart, R., 2008. Democratization as Human Empowerment. *Journal of Democracy* 19 (1): 126-40.
- Schmolders, G., 1970a. *Finanzpolitik* (3th edn). Berlin: Springer

# ANALYSIS OF THE MAIN INTERNATIONAL STANDARDS AND GUIDELINES ABOUT PROJECT RISK MANAGEMENT

**DROB Cătălin**

*Assistant professor Ph.D., Faculty of Engineering, “Vasile Alecsandri” University of Bacau, Bacau, Romania, catad@ub.ro*

**Abstract:** *The purpose of this paper is to present the main guidelines and standards concerning the project risk management such as: the PMBOK guide, the PRAM guide, the PRINCE2 standard and the ISO 31000:2009 standard. Also, this paper tries to make a comparative analysis of main standards about project risk management. In my opinion, the best standard regarding the project risk management is that which suits better with the size and nature of the project and also is that on which you know and manage the best.*

**Key words:** project, risk, management, standards, guidelines

**JEL classification:** G32

## 1. Introduction

From the project management point of view, the risk can be defined as the probability of an uncertain event to occur. This event can have a positive or rather negative impact on the project objectives.

Managing a project without taking into account the potential risks can lead to its failure. Therefore, it is important to implement the risk management in any projects.

In the last years, some guidelines and standards concerning the project risk management were proposed. Of these, the best known and most used are:

- A guide to the Project Management Body Of Knowledge (the PMBOK Guide) issued by the Project Management Institute (U.S.A.);
- The PRINCE2 (PProjects IN Controlled Environments) standard (methodology) who was initially developed, in U.K., by the Central Computer and Telecommunications Agency;
- The Project Risk Analysis and Management Guide (the PRAM Guide) issued by the Association for Project Management (U.K.);
- ISO 31000:2009, “Risk Management – Principles and Guidelines”, developed by the International Organization for Standardization (Switzerland).
- ISO/IEC 31010:2009, “Risk management – Risk assessment techniques”, developed by the International Organization for Standardization (Switzerland) in cooperation with the International Electrotechnical Commision etc.

## 2. Project risk management according the PMBOK Guide

In 1969, in the U.S.A. it was constituted the first organization which had the aims to promote and develop the project management: Project Management Institute (PMI).

In 1987, the Project Management Institute has proposed a set of standards and practical guidance for the this field, in a document known as the PMBOK (Project Management Body Of Knowledge), which defines the fundamentals of project management for several areas activity, such as engineering, construction, IT etc.

Later, in 1996, was developed the first edition of the guide (A guide to the Project Management Body of Knowledge). The second was developed in 2000, the third in 2004 and the fourth (which is in force today) in 2008. This year the PMI will elaborate the fifth edition of this guide. In present, this edition is already in draft.

In the PMBOK guide, the problems concerning the project risk management are treated in the 11th chapter.

Comparing the five editions of the guide, we can say that the approach to risk management has suffered in recent years, several changes both in terms of number of processes and their name and definition. Thus, the

five editions of this guide (standard) consider that the project risk management covers the following processes (PMI, 1996, 2000, 2004, 2008):

**Table 1 The processes of project risk management according the PMBOK Guide**

<b>First edition of the PMBOK guide</b>	<b>Second edition of the PMBOK guide</b>	<b>Third edition of the PMBOK guide</b>	<b>Fourth edition of the PMBOK guide</b>	<b>Fifth edition of the PMBOK guide (in draft)</b>
	11.1 Risk management planning	11.1 Risk management planning	11.1 Plan risk management	11.1 Plan risk management
11.1 Risk identification	11.2 Risk identification	11.2 Risk identification	11.2 Identify risks	11.2 Identify risks
11.2 Risk quantification	11.3 Qualitative risk analysis	11.3 Qualitative risk analysis	11.3 Perform qualitative risk analysis	11.3 Perform qualitative risk analysis
	11.4 Quantitative risk analysis	11.4 Quantitative risk analysis	11.4 Perform quantitative risk analysis	11.4 Perform quantitative risk analysis
11.3 Risk response development	11.5 Risk response planning	11.5 Risk response planning	11.5 Plan risk responses	11.5 Plan risk responses
11.4 Risk response control	11.6 Risk monitoring and control	11.6 Risk monitoring and control	11.6 Risk monitoring and control	11.6 Control risks

Concerning the fourth edition of the guide, plan risk management process has the role to define how will be conduct the activities related to risk management within a project (PMI, 2008). The main result of risk management planning process is the risk management plan. This plan is a document in which will be setting out the strategies, the actions that will be used to minimize the negative effects which can be generated by the manifestation of the potential risk factors. This plan is made at the start of the project and is a major part of the project management plan.

Identify risks is the process of determining the risks that may affect the project and of documenting their characteristics (PMI, 2008). Risk identification is a repetitive action during the project life cycle. To identify project risks can be used several tools and techniques such as: documentation reviews, information gathering techniques (Brainstorming technique, Delphi technique, interviewing etc.), diagramming techniques (cause-and-effect diagrams, system or process flow charts etc.), checklist analysis, SWOT analysis, expert judgment etc. The main result of this process is a document named the risk register.

Perform qualitative risk analysis is the process in which is realized a risk hierarchy, a prioritization for the identified risks (a prioritization of the risks as low, moderate, or high priority risks). For this is necessary to establish for these risks the probability of occurring and impact.

The qualitative risk analysis is based mainly on the risk register and on the risk management plan. In order to achieve a qualitative risk analysis can be used several tools and techniques, based on: risk probability and impact assessment, probability and impact matrix, risk data quality assessment, risk categorization, risk urgency assessment etc (PMI, 2008).

Perform quantitative risk analysis is the process designed to analyze the effects of identified risk on project objectives, from numerical point of view. This analysis is made only for risks, which were classified (in the previous process) as risks with high priority.

As tools and techniques for performing quantitative risk analysis, we can use: PERT technique, Monte Carlo simulation, decision tree analysis, sensitivity analysis, expert judgment etc (PMI, 2008).

Plan risk responses is the process which consists in the development of the actions and strategies to enhance or exploit opportunities and to reduce or eliminate threats to project objectives. For achievement this goal, the followings strategies can be used (PMI, 2008):

- strategies for negative risks or threats (avoid, transfer, mitigate or the acceptance of the risks);



- strategies for positive risks or opportunities (exploit, share, enhance or the acceptance of the risks);
- contingent response strategy.

Risk monitoring and control is the process of execution the risk response plans, tracking identified risks, monitoring residual risks and of identifying new risks.

For performing this process several tools and techniques can be used, such as: risk reassessment, risk audits, variance and trend analysis, reserve analysis etc (PMI, 2008).

In 2009, the PMI has elaborated a standard for project risk management named “The practice standard for project risk management”. In this standard, the problems concerning the project risk management are very similar treated like in the 11th chapter from the Guide to the Project Management Body of Knowledge (fourth edition) elaborated by the PMI in 2008.

### **3. Project risk management according the PRINCE2 standard (methodology)**

In present, the PRINCE2 methodology is the UK de facto standard for project management. The origin of this standard comes from a project management method called PROMPTII. In 1979, The Central Computer and Telecommunications Agency (CCTA) adopted PROMPTII as the standard for all government information systems projects. In 1989, PROMPTII suffered some changes and has transformed in PRINCE Standard. Later, in 1996 the PRINCE standard was revised and improved and his name became PRINCE2. The important revisions of this standard were made in 2002 and in 2005.

In the PRINCE2 standard, the risk is considered o major theme, which proposed to identify, assess and control uncertainty. The project risk management according the PRINCE2 is in detail developed in the book named „Management of risk: Guidance for practitioneres” elaborated by the Office of Government Commerce (OGC), in 2007. According this guide, every project must have its own risk management strategy. Also, PRINCE2 considered that the risk management can be viewed like a procedure, which implies the following steps: identify, assess, plan and implement (OGC, 2007).

To identify project risks, according the PRINCE2, can be used some tools and techniques such as: Ishikawa diagram, risk checklists, risk prompt lists, risk breakdown structure, brainstorming etc. For every risk must be establish the cause, event and the effect.

The next step of this procedure implies to assess the risks. As tools and techniques for assessing risks, we can use: expected value technique, decision tree analysis, Pareto analysis, Monte Carlo simulation etc.

Planning risks has the aim to establish the actions to control risks.

PRINCE2 focuses on the opportunities. The guide proposed three major ways of approaching an opportunity: exploit, increase (the probability or impact of the event occurring) or reject the opportunity. Also, the PRINCE2 proposed some responses to threats, such as: avoid, share, reduce, accept or transfer the risks.

The next step implies the implement of the risk responses. Another important element of this procedure, which is considered the last part of this procedure, is the communication. Communicating information about risk needs to be carried out continually (OGC, 2007).

### **4. Project risk management according the PRAM Guide**

The Project Risk Analysis and Management Guide (the PRAM Guide) was elaborated by the Association for Project Management’s Specific Interest Group on Project Risk (Risk SIG). The first edition of this guide, edited by P. Simon, D. Hillson and K. Newland, was published in 1997. The second edition was published by the Association for Project Management (APM) in 2004. Many concepts about risk management remained the same as they were in 1997. The major contributions of the second edition of the PRAM guide (who was strong restructured) regarding the aspects about the actions which can be used to enhance or exploit opportunities and to reduce or eliminate threats to project objectives.

The PRAM Guide was elaborated like guidelines for controlling risk within a project. Project Risk Analysis and Management is a iterative process, who must be repeated throughout the project life cycle. This process has five phases: initiate, identify, assess, plan responses and implement responses (APM, 2004). The first phase can be divided into two sub-phases: define project and focus risk management process. In addition, there is a Manage Process continuous phase, which is conducted in parallel to the other phases.

## 5. Project risk management according the ISO 31000:2009 standard

In Australia and in New Zealand was proposed and adopted a standard concerning risk management named AS/NZN 4360. The first edition was published in 1995. The next edition was published in 1999 and in 2004 was elaborated the third edition of this standard (AS/NZN 4360:2004). In 2005, the International Organization of Standardization (ISO) started to work for elaboration of an international standard based on the AS/NZN 4360 standard. The result of this work was the ISO 31000:2009 standard, “Risk Management – Principles and Guidelines”. In Australia and in New Zealand this standard is named AS/NZN ISO 31000:2009 standard, “Risk Management – Principles and Guidelines”.

ISO 31000:2009 provides general guidelines and principles on risk management. This standard can be used by all forms of organizations for different activities including projects.

ISO 31000:2009's risk management process requires 7 phases: communication and consultation (with stakeholders), establishing the context (the context in which the rest of the process will take place), risk identification, risk analysis, risk evaluation, risk treatment, monitoring and review (ISO, 2009).

## 6. Comparative analysis of main standards about project risk management

Comparing the main standards about project risk management we can identify many common elements but also some differences in terms of their approach to process of risk management.

**Table 2 The process/procedure of project risk management**

The process/procedure of project risk management				
Processes/ Phases/ Steps	PMBOK	PRINCE2	PRAM	ISO 31000:2009
	Plan risk management		Initiate	Communication and consultation Establishing the context
	Identify risk	Identify	Identify	Risk identification
	Perform qualitative risk analysis	Assess	Assess	Risk analysis
	Perform quantitative risk analysis			Risk evaluation
	Plan risk response	Plan Implement	Plan responses Implement responses	Risk treatment
	Monitor and Control Risks	Communicate	Manage Process	Monitoring and review

The process/procedure of project risk management of these standards is formalized, phased and iterative. Also, process/procedure of project risk management of these standards has in common three major elements related to: identify risk, assess risk (risk analysis and evaluation) and plan risk response (risk treatment).

The differences between these standards refer to the phases number of the project risk management process and to the structure of this process.

The approach of the PMBOK standard is based on the process notion. Every process has own inputs, outputs and particular tools and techniques. The PMBOK standard is comprehensive and descriptive, while the PRINCE2 standard is more prescriptive and based on business case.

The PMBOK standard has many similarities with the PRAM standard. The processes (used by the PMBOK standard) and phases (used by the PRAM standard) are very similar. Also, the tools and techniques used by these standards to manage the risk are rather similar.

The main aim of the ISO 31000:2009 standard is to harmonize risk management processes in actual standards. The approach used by this standard provides the principles and guidelines for managing any type of risk.

There are some differences between these standards, which refer, among other things, to the manner in which is approached the communication and consultation with stakeholders about the risks within project and to the manner in which is realised the monitor and control of the risks.

## 7. Conclusions

In the last years, some standards concerning the project risk management have been elaborated. These standards propose different approaches related to the process/procedure of project risk management. However, these approaches are not fundamentally different. The common aim of these standards is to create a framework to manage the risk within project.

Different organizations can adopt different strategy, tools and techniques regarding project risk management. The most important thing is that the organization must choose the project risk management strategy that suits them. Also, project risk management must be adopted during the project initiation phase, throughout the project lifecycle.

In conclusion we can say that the best standard regarding the project risk management is that which suits better with the size and nature of the project and also is that on which you know and manage the best.

## 8. References

- Association for Project Management (2004) *Project Risk Analysis & Management (PRAM) Guide (second edition)*, High Wycombe, Bucks UK: APM Publishing.
- Association for Project Management (2008) *Prioritising Project Risks*, High Wycombe, Bucks UK: APM Publishing.
- International Organization for Standardization ISO 31000:2009 (2009) *Risk Management Principles and Guidelines*, Geneva, Switzerland.
- International Organization for Standardization ISO IEC 31010:2009 (2009) *Risk management – Risk assessment techniques*, Geneva, Switzerland.
- Office of Government Commerce (2007) *Management of risk: Guidance for practitioners*, The Stationery Office, UK.
- Project Management Institute (1996) *A Guide to the Project Management Body of Knowledge (PMBOK®)*, First Edition, Newtown Square, PA, USA.
- Project Management Institute (2000) *A Guide to the Project Management Body of Knowledge (PMBOK®)*, Second Edition, Newtown Square, PA, USA.
- Project Management Institute (2004) *A Guide to the Project Management Body of Knowledge (PMBOK®)*, Third Edition, Newtown Square, PA, USA.
- Project Management Institute (2008) *A Guide to the Project Management Body of Knowledge (PMBOK®)*, Fourth Edition, Newtown Square, PA, USA.
- Project Management Institute (2009) *The Practice Standard for Project Risk Management*, Newtown Square, PA, USA.
- Raz, T., Hillson, D. (2005) *A comparative review of risk management standards*, Risk Management: An International Journal, Vol 7, No 4, p. 53-66, Available at <http://risk-doctor.com/pdf-files/final-issue.pdf>.
- Simion, C.P., Radu, V. (2009) *Abordări ale managementului riscului proiectelor în ghidurile și standardele internaționale*, Revista Construcții, No 1, URBAN-INCERC, sucursala INCERC - București, Available at <http://constructii.incerc2004.ro/Archive/2009-1/2009-1-2.pdf>.
- Yusuff, M. (2006) *Contemporary Approaches to Project Risk Management: Assessment & Recommendations*, Infosec Writers, Available at [http://www.infosecwriters.com/text\\_resources/pdf/IS\\_Project\\_Risk\\_Mgmt.pdf](http://www.infosecwriters.com/text_resources/pdf/IS_Project_Risk_Mgmt.pdf).

# BETWEEN SUBJECTIVE AND OBJECTIVE IN MAKING DECISIONS ON THE ROMANIAN HIGHER EDUCATION MARKET

**DRUICĂ Elena**

*Professor Ph.D., Faculty of Business and Administration, Department of Economic and Administrative Sciences,  
University of Bucharest, Bucharest, Romania,  
e-mail: [elenadruica@yahoo.com](mailto:elenadruica@yahoo.com)*

**CORNESCU Viorel**

*Professor PhD, Faculty of Business and Administration, University of Bucharest, Romania,  
e-mail: [viorel.cornescu@drept.unibuc.ro](mailto:viorel.cornescu@drept.unibuc.ro)*

**IONESCU Vladimir-Codrin**

*Associate Professor PhD, Faculty of Business and Administration, University of Bucharest, Romania  
e-mail: [vladimir-codrin.ionescu@drept.unibuc.ro](mailto:vladimir-codrin.ionescu@drept.unibuc.ro)*

**Abstract:** *Having roots in intentional behaviours, adverse selection as part of information asymmetry is a widely – discussed concept, closely related to many sides of economics and generating the most various problems in practice. As the specific literature says, the adverse selection leads, or at least in theory should lead to market failure when no external force comes to balance its effects. Since this failure never occurs in fact, it is questionable whether the adverse selection is the only factor that influences an uniformed consumer decision, or other factors come to counterbalance the factors described by Akerloff. This paper intends to advocate the idea that as much as adverse selection, there are subjective factors having impact on the decision made on the Romanian Education Market.*

**Key words:** adverse selection, subjective decision making, education market

**JEL classification:** A 13, D 70, D 79, I 21

## 1. Introduction

Since 1970, when Akerloff published his paper over ‘lemons’ (Akerloff, 1970), adverse selection has been awarded as an important threatening both for individuals and firms, having major implications over the results of a deal. Akerloff’s model describes a logical mechanism by which the presence of adverse selection could lead to failure of the market, but neither the author of the article, or other economists preoccupied in this subject had ever offered details about the concrete way in which this failure happens, or about the causes for which the failure never occurs in fact.

There are two important reasons for which we have decided to focus our attention to the education market. As Philip Stevens and Martin Weale back up based on statistic evidences (Stevens and Weale, 2003), first it is generally accepted that life standards are increasing from year to year, from month to month, due to education. People are the beneficiary of education and in the same time are responsible for its existence and improvement. Secondly, econometric studies indicate that the level of education and the income of an individual seem to be directly correlated. The conclusion of this issue is a logical one, in the sense that a country could become richer based on a high level of education, as well as any individual in that country could increase his or her income based on the same education.

A wide range of studies and papers argue the strong existing connection between education and economic growth. Since 1974, when Jacob Mincer’s model (Mincer, 1974) was accepted as a proper framework used to estimate returns to schooling, to schooling quality or to measure the impact of work experience on male – female gaps, economists have agreed with the existence of this relation. Despite the fact that today the Mincerian model seems to be an old fashion one, there are others models which try and succeeded in detecting the measure of the impact of education over economic growth (Heckman et al., 2003).

To conclude, we have to take into consideration on the one hand the evidences according to which education and economic growth are strongly connected to each other and on the other hand the widely accepted opinion that the role of higher education in a knowledge driven economy has never been more crucial (Mattoon, 2006) than today. In this way, we'll understand that qualitative uncertainty regarding the education process could become a threat on a macro level, being about to put in trouble one of the main engines of the economic growth.

In this paper we will bring together two of the very important concepts of Economics: adverse selection as a part of information asymmetry and university education market as a part of the economy of a country. Of course, this "meeting" between the two above mentioned concepts could lead toward many ideas to be discussed, adverse selection and university education market being both very complex issues in economics.

Our first goal is to underline the university education market characteristics and to select those of them which, being less observable or even unobservable, can lead to rational or irrational factors involved in making decisions on this market. Adverse selection and its unpleasant consequences will be discussed along with other subjective triggers of doubtful choices. The second goal is to discuss over the Romanian specific situation, based on the lately noticed changes on the education market. These discussions will render evident some subjective aspects of the adverse selection presence in market's life and will put forward the natural question: "Is adverse selection the main threat in this context, or people's mentality, their ego and self pride, their comfort or even indolence are in fact as important as the objective causes of information asymmetry are?"

## **2. University Education Market – Brief Description**

Searching for a proper definition of education market, we discovered that this widely used concept doesn't have a clear meaning, at least in Romanian literature. Moreover, there are situations when we grasp a kind of confusions between education market and educational services market, a fact which could lead to an unwished mix of properties and characteristics of the two markets and, consequently, to a lack of understanding in specific phenomena and behaviours.

We have to say, from the beginning, that we have no intention to recreate the still living polemics which have always been characteristic of risk definition intent. All that we try to do at this moment in time is to give a proper theoretical framework for managing the concepts, for their describing and delimitation.

The Romanian Language Explaining Dictionary shows that "education" means "the aggregate measures systematically applied in order to build up and develop the intellectual, moral or/and physical features of the striplings, people or society". From a more sophisticated point of view, education refers to the "academic and professional building up and continue learning" (Verboncu, 2007). Let's put together these definitions and the well known market definition too and we'll agree that education market has to be more or less an abstract place where it happen the meeting between the demand and supply of education. By a similar judgment, we'll be able to define the educational services market as a framework where it could happen to find a balance between the demand and supply of educational services.

For a mindful enough person the problems regarding these descriptions arise at once. Let's take into consideration the nature of "education" as a process, an action or a plurality of actions: that means that a "product" on this market has to be characterized by some specific features about which we'll discuss in section 3. It becomes very clear too that educational services market provides tools in order to achieve the goals of education, but from a theoretical point of view yet we can't affirm that education market is enjoying the same rights as educational services market or other way round.

To continue the reasoning, let's refer to the market definition provided by marketing. Now, we are talking about "a group of consumers or organizations that is interested in the product, has the resources to purchase the product, and is permitted by law and other regulations to acquire the product". This approach to market concept lead to the conclusion that at least a side of the education market could exist for a while in the absence of educational services and this is not a surprising result. A very natural market mechanism has to create the opposite side of market, the supply of education. Of course, we can pretend that the only way the education could be performed are educational services, but we are still not sure that this put the sign of equality between the discussed markets. The final argument is deeply related with the concept of intent, being

known that an economic structure is a deliberately created structure. Education means in the same time society models, cultural and religious customs, family ties, friend's opinions, as well as well defined educational structures and initiatives. These last components are afforded in an institutional framework, based on a preliminary premeditated decision of implementation and through the instrumentality of educational services. Put in this way, the identity between education market and educational services market became obvious: in order to belong to a market, any educational process has to be a deliberate one and has to be provided by an acknowledged structure.

Sequel we refer to a part of education market, named university education market, which is clearly the group of people willing to derive advantages from being student or from holding the diploma, having the resources to obtain all of these, and having no interdiction by law in this sense. Based on above considerations it is implied that university education market includes in the same time the university educational services supply, as a set of specific training programs and a set of rules which indicates the eligibility criteria for a person to be beneficiary of these programs.

### **3. The implications of University Education Market definition**

The above approach of the university education market needs some comments. Firstly, the group of "consumers" that is interested in university educational services is permanently changed due some of the new trends that we'll discuss in section 4, this making difficult to have a permanent control over the structure of the potential market. Secondly, the available market is difficult to set. In regard to educational services, the resources required to obtain a diploma are both financial and non-financial, because a student needs to be smart enough to pass the exams, willing enough to do efforts, and not only rich enough to pay the eventual school fees. The assessment of the financial possibilities could be easier than the measurement of the intellectual skills or willingness to do effort is. These last characteristics are less observable despite the wide range of tests pretending that can offer good results here and there are specialists considering that these results are sometimes to be contested (Gordon 1995).

The definition of university education market engenders many other questions, this time in regard to a possible equilibrium on this market. The neoclassical models require an independent variable in order to acquire the description of a stable position on the market, and this variable use to be the price of the product. The problem arising here is in regard to the nature of the traded product because the educational service seems to have some characteristics making the difference. A customer can buy an ordinary product and starting that moment he can use it and derive advantages from this. On the contrary, an educational service needs some years to spend and a lot of financial and/or non-financial effort to be made by the student until he or she will be able to have a new and improved position in society. By paying a tax, or obtaining a good mark to the admission exam, a student gains the right to go to school but not the diploma itself. This is the point requiring intellectual skills and wish for work and that's why the educational service acquisition is a "stage process" in which mistakes could appear in the assessment of probability for a student to finish the studies.

### **4. The new trends in university education market...**

As we mentioned in section 3 above, the potential market is permanently changed because facing of some trends which are the main subject of discussion below. The specialists agree that lately, the university environment has been suffering a series of important transformations which have been described as being evolution and revolution processes (Duderstadt, 1997) and which entail the most various effects. There are being discussed six trends (Pintea, 2001) which the nowadays university education must face and handle and these are: the globalization, the public finance decline, the increasing of the students' demographic and socio-economic diversity, the request for a permanent education of the adults, the unprecedented development of the informational technologies and the globalization of the university education market. The effects of these trends are being conjugated towards the need of introducing a private organizational pattern (Burbules, 2000), which must handle a context which is starting to look more and more alike the internal and external business environment seen within companies. "The entrepreneurial university" is one of the concepts which by the way in which it is described draws attention, to the fact that the new university carries on its activity on its own risk, as an independent university which is functioning within the strict parameters of costs and profits.

In detail, the idea of „entrepreneurial” aims at three aspects and these are as it follows: the university as an organization, the university members and the relation between the university and the external environment. It is brought into discussion the fact that the risks assumed by an entrepreneurial university are related to the introduction of a new practice, to the innovating of the functioning mode, to the substantial changing of the structures, or to the anticipation of the market evolution simultaneously with registering the apparition of new opportunities or perspectives. All these features mentioned here as being characteristics of the present environment in which a university carries out its activity, point to the idea of disappearance of the protection of the pre-eminent education institutions facing new existence conditions. We shall discuss each trend looking through the potential damaging phenomena angle they are involving.

Trend 1, which refers to the university education globalizing, is equally tendered and threatening. Any university would want a larger number of students, would try to provide suitable educational programs, but it would probably be influenced by the operational risks, by the behavioural ones and last but not least by the image related risk. Even though the supplement of the students’ number may bring major financial benefits, the decisions of implementing new educational programs which are meant to serve this purpose must not be taken with the risk of rebate from the quality of the educational process, being aware of the fact that one of the most important indicators which warns the institution regarding the fact that from the didactical and science research activity point of view has an unsatisfying contact with the market and it is exactly the gathering of students or teachers of doubtful quality.

Trend 2, which refers to the decline of the public financing, represents the developer of the risks specific to the first trend because trend 1 is the natural consequence of trend 2 in reality unfolding, nevertheless without the existence among them of an exclusive causality relation. On one hand, the temptation of a large number of students’ conflicts with the possibilities of public financing of the pre-eminent education activities, in the same way as the reduction of this financing generates the need to detect and to obtain supplementary financing sources from the private sector. The problem of the decline of the public financing creates, besides the need of alternative sources, also the need of a suitable management from which to result a private finance portfolio which is diversified enough to expose the institution to a minimum risk.

Trend 3, the increasing of the demographic, cultural and socio-economic diversity of the students, places the university face to face with various ages, material and intellectual possibilities, with various needs, with approaches of the learning process and visions regarding the curricular preparation needs. Not at all by accident, it is emphasized the teachers’ availability to guide the students who have needs or special abilities and this trend’s function is of an alarm signal regarding the human resources and the process risks which aims at both teachers’ component and the students’ component.

Trend 4, the request for a permanent education of the adults, can represent a reason for trend 3. Students have different ages, various jobs; they come from various environments and work staffs, which differentiate one another from the attitude towards learning point of view. Regarding this trend, the risks are first of all related to the educational programs offer, as first impact perimeter. Once the program has been implemented, we can talk about the risks regarding trend 3.

Trend 5, the unprecedented development of the informational technologies, is an important element of emphasizing the competition risk. Normally, the result is an elimination of the spatial and age barriers, giving access to the information which was once rare and expensive and allowing the appearance of the competition of those institutions which are well-known within the virtual education field. But, in some way, the competition risk inducted by this trend is probably kept down low in Romania by the very assembly of those other trends. For now, the cultural diversity, the globalizing, the age diversity determines tradition to play an important role when choosing the pre-eminent education institution. Students are looking for diplomas emitted by institutions which have credibility, experience, or ... airiness. But, in any of these cases, the students opts most of the times rather for the traditional university than for the virtual university as a consequence of the reputation formed lately by the both university education institutions.

Trend 6, the globalization, brings a multitude of transformations and, beyond the indisputable benefits, it is threatening by making disappear the institutions’ means of protection when facing new competition. Thus, it generates the perfect premise for an institutional activity based on risk, probably being the closest threat for the entrepreneurial university which we have described as an entity who carries on its activity on its own risk. The manifestation of this trend makes possible the materialization of all those other

trends' threats and it adds moreover the threat of widening the students' mobility borders so that the results of the institutional training to be evaluated by a large number of observers.

### **5. ... And their implications in the decision process**

Looking at the nowadays educational supply in Romania we can observe a huge number of universities, each of them trying to make up on the rest of competitors. All that a person willing to obtain a diploma needs to do is to pick out an educational service and eventually learn. The first problem arising here is related to the selection criteria, because the school leavers feel the temptation to choose according to their own priorities, what sometime represent a completely subjective choice. Let's take into consideration the following criteria:

The first criterion is related to the importance of brand or its subjective or objective perception. Willing to purchase a qualitative educational service, the school leaver will try to become student of a faculty in a well known university. This point of view could be a proper one, but we have to ask ourselves if the brand is enough today to offer a warranty. As we mentioned earlier, the quality of the educational service is difficult to assess and the trend number one is enough for dart a doubt over the faculties' capacity to manage thousands of students. We can mention here an important institution in Bucharest getting over 35.000 students willing to find a transfer possibility to a faculty with a staff interested in human communication.

With the second criterion agree the potential students' not willing make a severe mental effort. They are always about to choose an institution able to offer them a diploma for nothing more than money and/or some personal relations used. Getting in labour market, these graduates will over asses the labour supply with all the implications here. It is the case of many private universities which offer a diploma based on yearly payments of the scholar fees, some of the graduates having serious difficulties to explain where exactly is their faculty in town.

Thirdly, there are school leavers wiling a diploma no matter in what field. They will choose the faculty based on the admission exam's difficulty level and not by thinking to their skills in the domain. The reason is that in many situations it isn't really important what kind of diploma the graduate gets, the main aspect being the possession itself which allows the holder to earn a good wage or to continue his or her academic grounding through a master degree for example.

The criterion no 4 refers to a delicate problem in a student's life. We are talking about a choice based on own resources, taking into consideration the expenditures that he or she must stand: tuition fees, house rent, or food for example. Unfortunately this criterion is a very important one, sometimes becoming the first rule of choice.

We agree with the idea that a final choice results from a combination of the four criteria above mentioned, but this does not provide a low level of adverse selection. As long as there is an important level of subjectivity in students' choices and nothing from the university side reduces the possible consequences, we consider that the low quality in teaching follows from a well known and well accepted mechanism. The issues are important for students and university, too. We can agree with the idea that a student is both input and output during the educational period, and because of this approach the adverse selection problem arises from two angles.

Firstly, a student never knows the real quality of the educational service, which means that he or she could make an adverse choice. Of course, the student can change the choice by changing the institution, but this would lead to supplementary costs, and these are sometimes non-financial ones.

Secondly, a university doesn't really know the level of an applicant that has passed the examination. However, this low quality could harm the carrying out of quality standards, the reputation and in this way will increase the probability that a future applicant is a low quality one. Again, we face the idea of adverse choice, this time from the faculty's side.



## 6. Conclusions

Adverse selection can be viewed as a pure risk, to the extent in which an individual can encounter it, but as long as we are conscious of its presence it becomes a risk factor in regard to the expected results. Maybe, information asymmetry represents a natural result of human behaviour. In the days of the entrepreneurial university each institution will assert that it is the best choice for a student and will try to prove this. In the same time, a student will behave in a similar way trying to impress the university staff with his or her skills. Sometimes the assertions are true, sometimes they are not.

The main problem is that nowadays the universities are too busy to find out the applicant motivation and abilities or to detect objective selection criteria. On the other side, an applicant that passes the admission examination could have the big surprise in his or her life to discover that in fact the wanted quality standard is only a nice story. In both situations, adverse selection is going to alter the natural mechanisms on the university education market. Usually, any fear in regard to the quality of a good or service belonging to a market could have an institutional support, in the sense that in each country we find national warranty organisms. Of course, Romanians know this but we are wondering to which extend we could trust these institutions and how much risk is possible to cover this kind of "insurance", as long as the educational service is probably the only traded "good" in our economy which has nothing to do with the warranty practices.

An important part of educational market proves a really need and wish of education, but we can't neglect on the demand side those individuals willing to be like the next man and on the part of supply those university institutions allowing any rules just for earning scholar fees. The well known economic growth models having education as independent variable are then about to fail twice because apart the unobservable characteristics implied in the model they have to face a second bias due to a real adverse selection on the market.

Despite the important percent of bad products of the university education market, sometimes warranted in the light of certain personal relationships or of interests group, we can see that the changes that Akerloff predicted in his paper are still not happening. Could then the reason be strongly related to the personal and subjective and completely heterogeneous incentives of the human capital involved in this market?

## 7. References

- Akerloff G. (1970), The Market for 'lemons': Qualitative Uncertainty and the Market Mechanism, *Quarterly Journal of Economics*, 84, August, p. 488 – 500
- Burbules, N.C. (2000), Universities in transition: The promise and the challenge of new technologies, *Teachers College Record*, 102 (2), p. 273-295
- Duderstadt J. J. (1997), The future of the university in an era of change,  
• <http://milproj.umm.umich.edu/publications/change/download/change.pdf>
- Gordon Edmund (1995), Toward an Equitable System of Educational Assessment, *Journal of Negro Education*, Vol. 64, No 3, p. 360 - 372
- Heckman J., Lochner L., Todd P. (2003), Fifty years of Mincer Earning Regression, IZA Discussion Paper 775, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=412480](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=412480)
- Mattoon H. Richard (2006), Can Higher Education Foster Economic Growth? Chicago Fed Letter, Federal Reserve Bank of Chicago, No. 229, <http://www.chicagofed.org/>
- Mincer J. (1974), *Schooling, Experience and Earnings*, New York: NBER Press
- Pintea, S. (2001), *Cultura antreprenorială în spațiul universitar, Cogniție, Creier, Comportament*, 5(4), 405-420
- *Romanian Language Explaining Dictionary* (1998), Romanian Academy, "Iorgu Iordan" Linguistic Institute, "Encyclopedic Universe" Publishing House, Bucharest
- Stevens P., Weale M. (2003), Education and Economic Growth, Paper 221, NIESTER Discussion Paper from National Institute of Economics and Social Research, <http://econpapers.repec.org/paper/nsrniesrd/default1.htm>

- Verboncu I. (2007), Continuous building up, National and European benchmarks, <http://www.spiruharet.ro/ecel/w27.pdf>
- <http://www.netmba.com/marketing/market/definition/>

# THE EVALUATION OF A BLOCKING TRADEMARK OWNED BY A COMPANY IN INSOLVENCY PROCEDURE. CASE STUDY

FÂNTÂNĂ Raul Sorin

Assistant Professor Ph.D. , Faculty of International Economic Relations/ Department of International Business,  
"Dimitrie Cantemir" Christian University, Brasov, Romania, [secretariat@universitatea-cantemir.ro](mailto:secretariat@universitatea-cantemir.ro)  
Intellectual Property Expert, European Trademark and Design Attorney

**Abstract:** *In Romania, the general tendency is to underestimate the value of intangible assets of a company in insolvency or even bankruptcy. The case study in this paper provides the real value of a trademark whose owner is in bankruptcy. In a bankruptcy process, creditors will monitor and evaluate intangible assets valued separately - eg. trademarks, inventions, copyrights, because they might suffice to creditor more than money.*

**Key words:** trademark blocking, evaluation, exclusive right, superprofit

**JEL classification:** F12, O34

## 1. Introduction

According to Law no. 84/1998 on trademarks and geographical indications "[a] mark is a sign capable of graphic representation serving to distinguish the goods or services of a natural or legal person from those of others; may constitute trademarks: distinctive signs such as words, including names of people, drawings, letters, numerals, figurative elements, three-dimensional shapes and forms as the product or its packaging, colour combinations, and any combination of signs".

Whether it is about products already in production, the services already offered on the market, be it about products or services for which the company management efforts are underway for future activity, a trademark is meant *to distinguish* the company's products or services identical or similar to those of the competitors'.

The logical steps in a transparent business are i) to further protect through a private label some existing products / services, following a less than easy route to make a domestic, EU and international documentary research to avoid the risk of infringement trademark, or ii) to protect previously by a private trademark some products / services which still do not exist, but the company is working to shape them.

A type of *dishonest practice* is the registration in Romania and for the Romanian territory of an existing trademark, protected by a person - or entity - on a territory or territories on which some European directives have no effect (eg. Turkey). The purposes of such an approach are: a) misleading the consumers and customers about the possible rights given by a license, which can induce the idea of a quality product / service related to the trademark, b) real and immediate blockage or opportunity to lock for the future the foreign owner of the trademark when he would like to let other manufacturers, suppliers of services or traders to manufacture, offer or sell on Romanian territory the foreign original product protected previously through a trademark by the owner. That is a dishonest practice - though little known - demonstrated by the provisions of Article 5, letters a) and b) of Act No. 11 of 1991, updated, on unfair competition: „*It is an offense and it is punishable....*”

a) *the use of a firm, invention, trademark, geographical indication, a design, the topography of an integrated circuit, a logo or a container liable to cause confusion with those legitimately by another trader;*

b) *the release of counterfeit goods and / or pirate, whose proprietor trading prejudice and mislead the consumer on the quality of product / service; ...* "

The real case we present refers to a complex case.

Trade names and trademarks are renamed fictionally.

Thus, Romanian company ZENITH imports, at Phase I, detergents under STER trademark from Turkey, from the manufacturer BATIK, which is the owner of STER trademark which is protected in Turkey (non-EU country). In Phase II, ZENITH records in Romania and Moldova the STER trademark without firm announce BATIK. In Phase III, BATIK arrange to protect in Romania, Germany and Moldova trademark STER: is refused in Romania and Moldova; is accepted in Germany. In Phase VI, a large American company

is trying to protect the same trademark internationally in Germany: is refused on the grounds of opposition. In phase V, the Romanian company ZENITH becomes insolvent; a bankruptcy process is opened; the list of creditors, including the Romanian state, still presents a creditor - PATOR, which – due the impossibility to recover Currency - requires evaluation trademarks of insolvency, to be obligatory transferred by enforcement.

## 2. The evaluation of a blocking trademark in insolvency procedure

### 2.1. The trademark, intangible asset separately assessable

Unlike *Goodwill* - which is all the information, necessarily intangible, irremovable from the economic entity (enterprise) and not be rated separately, elements that contribute to a higher value of the company than the amount of its components' values - valued separately intangible assets are removable from the economic entity, and may be subject to economic transactions and transfers. These are: the trade name, the patent, the utility model, the trademark, the geographical indication, plant and animal varieties (races), the design, the integrated circuit topography, the copyright, the franchise contract, the lease, the costs of incorporation (the organization), the special contracts (eg training courses), the CD costs.

For its evaluation, methods are in place to take out either costs or revenues or profits, however obtained by free production or marketing or by calculating the royalties obtained from licensing.

### 2.2. Boomerang effect of monopoly position

The main functions of the mark are: a) function of the product or service differentiation, b) quality assurance function, c) function of competition, d) function of advertising, e) function of market organization, f) function of monopoly. For a trademark registration by honest commercial reasons, all functions can coexist and harmoniously coordinate.

While monopoly position should be a *consequence* of the registration of a trademark, it is sometimes - as is this case – the reason of the registration.

In this situation, the other functions are not important:

a) *function of product differentiation* or service - does not work at all; product or service cannot exist; the law allows five years for a trademark owner to decide to produce, market or provide services under that trademark;

b) *quality assurance function* – does not work at all;

c) *function of competition*, should work to allow consumer orientation decision, make a sign of the economic value of the product or service; but in this case, it is not oriented at all - not being advertised at all, the brand is kept only to be opposed, or even disorients, misleading;

d) *function of advertising* – does not work at all

e) *function of market organization* - the phrase "brand sells the product" no longer takes effect.

The *monopoly function* remains, which arises from the owner's exclusive right to use the trademark (for production, storage, offering for sale, marketing, export, import) given by law.

Mainly, the monopoly allows to limit the competition and to set high prices for goods, which ensures high profits, or superprofit.

When monopoly is due to the trademark, the superprofit due to the trademark (Spm) can be calculated, among others, through trademark additional margin assessment (MSM):

$$MSM = P_m - P_n \quad (1)$$

where:  $P_m$  is the monopoly price

$P_n$  – normal price,

and the superprofit due to the trademark,  $Spm$ , is calculated by applying MSM to each sold product, even if, due to the small quantity of goods sold, there is no corporate profit:

$$Spm = MSM \times Q \quad (2)$$

where Q is the quantity of goods sold.

The reason of this logic is the following: product protected by the evaluated trademark can be important, but i) management can be imperfect, or ii) other products, with different trademark of the same manufacturer support a temporary or a permanent recoil of the market, or iii) the company is insolvency for various reasons etc.

It should be noted that:

- a) MSM ignores the amount of goods sold.
- b) Spm ignores firm profitability; the company may be at a loss.

This means that in a process of bankruptcy creditors will monitor and evaluate intangible assets valued separately - eg. trademark, inventions, copyrights, because they might suffice to creditor more than money.

In our case, PATOR is expected to receive the binding assignment and to remain in a product market STER known and profitable trademark.

### 2.3. Case study

In accordance with data reported in financial statements (profit and loss), the statement branded STER goods bought and sold during 2005 to 2008 is as follows (Table 1):

Table 1

		Purchase Value	Sold Value	Profit Margin			
		607	707		%	%	
		(1.) RON	(2.) RON	(3.) = (2.) - (1.)	(2.)/(1.)	(3.)/(1.)	
ZENITH	2003	13164772	21688614	8523842	1,65	0,65	
ZENITH	2004	3327365	3683205	355840	1,11	0,11	
ZENITH	2005	145204	116156	-29048	0,80	-0,20	
ZENITH	2005	6600135	7672320	1072185	1,16	0,16	no production
ZENITH	2006	8740864	10668184	1927320	1,22	0,22	no production
ZENITH	2007	5102660	7024122	1921462	1,38	0,38	
ZENITH	2008	3759785	4502847	743062	1,20	0,20	

Table 2

		Manufactured and Sold Production
		RON
ZENITH	2003	0
ZENITH	2004	26748500
ZENITH	2005	720153
ZENITH	2005	0
ZENITH	2006	0
ZENITH	2007	693542
ZENITH	2008	2648555

In the years where there was production, ZENITH branded STER goods imported directly from BATIK producer in Turkey.

The accounting data shows that ZENITH Ltd. activity was import and direct marketing and production activities. It seems that the loan contracted by ZENITH in foreign currency for the production line proved to be bankrupt (Table 2).

Production decreased total financial result for the period (Table 3). Therefore, the assessment was made without taking into account the influence of production.

Table 3

	Total Operating Income (Production)	Total Expenses (Costs)	Profit - RON	Profit Margin - from Production (in exploitation)
	(1.) RON	(2.) RON	(3.) = (1.) - (2.)	(4.) = (3.) / (1.)
2003	26567562	26232639	334923	0,01260646
2004	31762805	33295993	-1533188	-0,04826992
2005	872121	1096346	-224225	-0,25710309
2005	7672320	7342203	330117	0,04302701
2006	10668184	10236061	432123	0,04050577
2007	8195459	7549186	646273	0,07885745
2008	7597561	7133993	463568	0,06101537

The production worked in loss. And this loss is not due to the mark but to financial management problems, to which we do not refer. Therefore, the calculation was performed taking into account only the financial effect of the sale of products imported and sold directly (freight).

The Method of the Multiple of Net Profit was applied (Stan V. Sorin, Ion Anghel, 1999; International Valuation Standards Council, 2011), only applicable in this case. In this method, the essential elements necessary for trademark evaluation is based on the following estimates:

a) calculating an annual average net profit for the last three years, given to the brand. To calculate this reproducible net profit (annual average), one must accurately reflect the economic reality of the period considered for the calculation. With regard to our present case, the calculation period is characterized by an evolution of the average rate which is 22.50 ROBOR peak value (maximum on 06.02.2004) and ROBOR 6.47 (minimum on 11/07/2005) - Table 4.

EURIBOR (Euro Interbank Offered Rate) is the interest rate for loans in EUR, applied between the main European banks.

BUBOR (now ROBOR - Offered Romanian Bank Rate) is the average interest rate for loans in RON granted on the interbank market and is set by the NBR.

Tabel 4

	data	indice		data	indice		data	indice
2003	06.ian.	20,31	2005	06.ian.	17,13	2007	05.ian.	8,31
	06.feb.	19,50		07.feb.	14,44		06.feb.	8,25
	06.mar.	18,25		07.mar.	12,00		06.mar.	7,91
	07.apr.	18,38		06.apr.	10,16		06.apr.	7,88
	06.mai	18,69		06.mai	9,69		07.mai	8,66
	06.iun.	19,31		06.iun.	9,84		06.iun.	7,74
	07.iul.	19,00		06.iul.	9,51		06.iul.	7,64
	06.aug.	19,25		05.aug.	8,35		06.aug.	7,14
	05.sep.	20,84		06.sep.	8,56		06.sep.	7,21
	06.oct.	21,31		06.oct.	6,56		05.oct.	7,71
	06.nov.	21,72		07.nov.	6,47		07.nov.	7,93
	05.dec.	21,75		06.dec.	7,56		06.dec.	8,23
2004	06.ian.	22,19	2006	06.ian.	7,63	2008	07.ian.	8,41
	06.feb.	22,50		06.feb.	7,78		06.feb.	9,72
	05.mar.	22,50		06.mar.	8,61		06.mar.	10,71
	06.apr.	22,50		06.apr.	8,64		07.apr.	10,99
	06.mai	22,50		05.mai	8,68		07.mai	11,06
	07.iun.	22,19		06.iun.	8,61		06.iun.	11,38
	06.iul.	21,38		06.iul.	8,99		07.iul.	11,78
	06.aug.	20,25		07.aug.	9,46		06.aug.	11,77
	05.sep.	19,31		06.sep.	9,23		05.sep.	13,48
	06.oct.	19,00		06.oct.	9,11		06.oct.	15,95
	05.nov.	18,93		07.nov.	9,19		07.nov.	17,38
	06.dec.	17,91		06.dec.	9,00		05.dec.	15,91

The value of the table rate is: 13.30306.

b) multiple determination (multiplier) applied to average net profit (PNM) annually reproducible. This analysis is based on specific market transactions (transaction is either similar intangible assets or sales operations - purchase, merger etc.. dealing with the companies that hold such intangible assets).

Therefore, the formula for calculating trademark value will be:

$$VM = PNM \times m, \quad (3)$$

where m is a multiple of average annual net profit.

According to the relevance evaluator, determination of average net profit may be considered over the last period (usually three years) or over the forecast horizon (for applications, 10 years).

He studied product wholesale market "detergent" in Romania. From the data collected, both for foreign brand products (ex. ARIEL) and Romanian brand products (eg DERO, Persil), normal profit margin (AC) is between 15% and 20% of the import that the manufacturer price (Romania).

For simplicity, we calculated the balances (Table 5), the difference between the Superprofit and the average annual price addition of ZENITH between 2003 and 2008.

Table 5

years	Purchase Value	Sold Value	Profit Margin		
	607	707	(difference)	%	%
	(1.) RON	(2.) RON	(3.) = (2.) - (1.)	(4.) = (2.)/(1.)	(5) = (3.)/(1.)
2003	13164772	21688614	8523842	1,647	0,647
2004	3327365	3683205	355840	1,107	0,107
2005	145204	116156	-29048	0,800	-0,200
2005	6600135	7672320	1072185	1,162	0,162
2006	8740864	10668184	1927320	1,220	0,220
2007	5102660	7024122	1921462	1,377	0,377
2008	3759785	4502847	743062	1,198	0,198
<b>TOTAL</b>	<b>40840785</b>	<b>55355448</b>	<b>14514663</b>		

Addition max. 15%	Superprofit	Addition max. 20%	Superprofit
(6) = (1.) x 1,15	(7.) = (2.) - (6.)	(8) = (1.) x 1,2	(9.) = (2.) - (8.)
15139488	6549126	15797726,4	5890887,6
3826470	-143265	3992838	-309633
166985	-50829	174244,8	-58088,8
7590155	82165	7920162	-247842
10051994	616190	10489036,8	179147,2
5868059	1156063	6123192	900930
4323753	179094	4511742	-8895
46966903	8582639	49008942	6970964,8

Thus, for a normal commercial addition (AC) of 15%, Superprofit (15%) is 8,582,639 lei for all imported goods; and for a commercial addition (AC) of 20%, Superprofit (20%) is 6970 .964,80 lei for all imported goods, including products branded STER.

Note that it is branded STER products of BATIK exporter in Turkey, trademark which becomes blocked in Romania by Romanian holder branded STER.

From the study of import invoices and internal invoices, we have data in Table 6.

As the number of import invoices offered by ZENITH is greater than the number of domestic invoices, expert chose the percentage of STER products obtained from processing import bills, even if it is lower than that found in the processing of domestic bills, but surety increases.

Resulting values between **EUR 1,088,150 and EUR 1,339,729.**



Of the two latter values the value of EUR 1,088,150 was admitted.

Table 6

<b>FROM INTERNAL INVOICES</b>		
If a total of 110,624.74 lei sales, merchandise STER is USD 90,650.64, namely 82% (.8194502) of the total, then		
A. For Superprofit <sub>(15%)</sub> merchandise STER is (82%)	RON 8.582.639	
	RON 7.037.764	
	or	<b>EURO 1,716,528</b>
B. For Supraprofit <sub>(20%)</sub> merchandise STER is (82%)	RON 6.970.965	
	RON 5.716.191i	
	or	<b>EURO 1,394,193</b>
<b>FROM EXTERNAL INVOICES</b>		
From the external list results that STER-branded merchandise is <b>64% (0,64)</b> .		
A. For Superprofit <sub>(15%)</sub> merchandise STER is (64%)	RON 8.582.639	
	<b>RON 5.492.888,96</b>	
	or	<b>EURO 1,339,729</b>
A. For Superprofit <sub>(20%)</sub> merchandise STER is (64%)	RON 6.970.965	
	<b>RON 4.461.417,60</b>	
	or	<b>EURO 1,088,150</b>

Applying the discount factor  $i = 13\%$  (average of Table 4) - reflecting the comfortable stability of the market in years in which we have data, we can offer – for STER trademark – a value between EURO 1,500,000 and EURO 1,200,000 sufficient, we believe, to meet the debt to the creditor Pater.

### 3. Conclusions

In Romania, the general tendency is to underestimate the value of intangible assets of a company in insolvency or even bankruptcy.

The fact that a large American company tries to register, under its name, the Turkish trademark STER in Germany, demonstrates the importance of protecting the trademark of a market, even we approach the limits of the law occurs.

The case study in this paper provides a real value of a trademark whose owner is in bankruptcy. If for a such small company we raise a value of over one million EURO for a trademark, we can imagine what values were thrown into nothingness when assessment of Romanian state companies occurs, or to foreign companies buying them knew how to get around this issue, either from employers in Romania, who did not know the subject (many do not know even now).

We are sure that most - if not all - Romanian companies (about 1500) that have been closed after privatization, have been underestimated by not taking into account the value of intangible assets. The only elements assessed were physical assets - buildings, machinery, vehicles. It is verifiable that companies evaluating Romanian companies with renown mark in bankruptcy (UTB, Mechanics Cugir, Roman, IUS and



other hundreds), have given no value for the purchase of any brands. UTB is the exception: one of the modules offered for purchase the intangible assets, but did not define them.

Future research may give answer as to where tons of projects and execution drawings of incalculable value are gone. Perhaps on the spare parts market in counterfeit as long as in Romania are dozens of firms producing U650 tractor parts, without any license? Perhaps given by little money to foreign manufacturers for infringement?

We believe that this paper can provide all stakeholders - professionals, teachers, PhD students, students - another side of trademark intangible, as intangible asset distinct assessable in the company patrimony and as intangible marketing - one of the few assets that confer a monopoly right and the only one that can be renewed - in theory - forever.

#### **4. References**

- International Valuation Standards Council, 2011 – *Standardele Internaționale de Evaluaare*, București
- Stan V. Sorin, Anghel Ion (1999) - *Evaluarea Activelor Necorporale*, IROVAL

# GLOBALIZATION ERA AND HUMAN RESOURCES MANAGEMENT

*FRATICIU Lucia*

Ph.D.,The Faculty of Economic Science,,Lucian Blaga” University of Sibiu,  
Romania,lucylucyda2005@yahoo.com

*POPA Liliana Mihaela*

PhD student, The Faculty of Economic Science,,Lucian Blaga” University of Sibiu, Romania,  
[lilipopa2004@yahoo.com](mailto:lilipopa2004@yahoo.com)

*INDRES Mihai*

PhD student,t The Faculty of Economic Science,,Lucian Blaga” University of Sibiu, Romania,  
[mihai\\_indres@yahoo.com](mailto:mihai_indres@yahoo.com)

**Abstract:** *The phenomenon called "globalization" ignores national boundaries and the main factor capable of securing the adaptability and flexibility of organizations needed to achieve success is people. It is well-known that, for the production of goods and services, each organization, combines, in varying degrees, financial resources, material resources, information resources and human resources. But from of all these, people are assessed as being vital to success of any business. The fact that without people cannot be done any business and organization goals cannot be achieved only through joint efforts of those who work within these is obvious and does not need any further explanation. Our main resource, man, represents an invaluable treasure which influences the prosperity that we all look for and human resources management becomes, in the context of globalization, the main tool which can lead organizations to achieve superior performance in global markets.*

**Keywords:** competition, work force, globalization, recession, HR

**JEL classification :** O15

## 1. Introduction

Business globalization is a complex and irreversible phenomenon of the XXI century of major importance, it began in the mid 80s, with influence in all areas of economic and social life, radically affecting international trade in the context of multicultural development, generating deep changes in organizations in national economies and on the global market. Under the impact of globalization, the world economy has suffered over the past two decades huge transformations.

For organizations, globalization means challenges and also perspectives. They must ensure their competitive advantage and gain added value in terms of achieving a unique market share. The investment process and the decision to invest, to immobilize financial funds for a certain period of time, hoping for profit may be, at the same time a risk and a opportunity to deal with the global economic environment. It is necessary to identify an organization's own potential in order to build solid foundation for activities in a complex competitive environment. Increasing the national and international economic efficiency requires accelerated learning. As well the cultural diversity cannot be ignored, being an absolute condition for value creation in different countries. Flexibility and speed to adapt to change are fundamental characteristics of a successful organization operating in global markets.

## 2.The concept globalization

The meaning of the term globalization, the fact that not all people have the same attitude towards globalization, pro and against, and the intensity of exploitation are no longer a novelty. But one thing is certain: that globalization has become an objective process, relentless, happening with an amazing top speed, including within its sphere almost all countries of the world. It is already a truism that globalization and internationalization of business organizations have become dominant and defining features of the contemporary world, so that working local, national, regional states form and radiate phenomena that alter perception and general philosophy about life and development in all areas and spheres of human activity. (Bogdan,2007).

Globalization has become a common word, but as we have shown, it has very different meanings for everyone. For some, it is synonymous with increasing international corporations whose extensive operations and interests transcend national borders. For others, the term is closely related to the technical revolution, the mobility of money, ideas and jobs that could provide them with computers and other new technologies. Globalization signifies a complex structural transformation of society in which numerous interwoven forces make national borders more permeable than before, increasing trade, investment, travel and computer networks. (Bran, John, 2009)

The famous English scientist John Dunning, assigns to globalization the following definition (Dobrotă, 1999): "Globalization refers to the multiplication of connections and interconnections between states and societies that are now part of the world system. It describes the process by which events, decisions and activities deployed in the world have significant consequences for individuals and communities located at great distances from one another. Globalization has two distinct features: the scope (extent) and intensity (depth). On the one hand, it defines a set of processes that include almost all the world, and operates worldwide, which borrows this concept a spatial connotation. On the other hand, it involves increasing levels of interaction, interconnection and interdependence between states and societies that make up the world community. Therefore, to the extension of connections comes the deepening of global processes."

Anthony Giddens (2000) defines globalization as a reference "to the development of social and economic relations that extend throughout the world. (...) A key aspect of the study of globalization is the emergence of a global system, which means that, to some extent, we have to see the world as a single step social order. "

### **3. The main changes brought up by globalization**

Globalization gives the world a new form and new perspectives in respect of international relationships. This phenomenon, although economic itself generates implications and effects in all areas of people. It is obvious that globalization is the implacable fate that awaits the world, an irreversible process which affects us all equally. (Bauman, 2002) Thus, globalization has a major impact on the social, cultural and political level. Organizations stand in the center of these phenomena, so they should be treated with seriousness and attention, this means that the actions of managers should focus on maximizing the advantages that these phenomena bring up, such as: technology transfer, know-how transfer, etc.

Globalization is a force that restructures society, the governance institutions and world order, reorganizing national economies, making economic activity to takes a transnational dimension, so that the national economic space no longer overlaps with the national territory (Castells, 1996; Ruggie, 1996). Economic globalization (Giddens, 2001) is a reality and not just a continuation or a revival of trends from previous years. [...] Globalization means not only - or not primarily - economic interdependence, but to transform the time and space in which we live.

U.S. recession has major influence on other economies in Europe and Asia. And this demonstrates the complexity and interdependencies that exist in the structure of world economy.

Nowadays, all countries, no matter if they are developed, developing, less developed or in transition, follow global market-oriented policies, opening to organization the access to international competition. And the successful development of organizations is possible only through their interaction with the post-industrial world and following the path already taken by developed countries. Globalization offers extended opportunities for a real development worldwide, but the progress across regions is uneven. Some countries become more integrated in the global economy faster than others. Countries that managed to become part of the globally unique system that is about to shape, are having more important economic growth and at the same time, a significant reduction of poverty.

Most of the economic actors are focused on values such as profit, efficiency, size and development and see business as a way of gaining a living. Globalization determines the business and economic actors to accept new responsibilities. The business must be seen as a "means through which people can grow and to serve others. Mai Furthermore, businesses should start to take responsibility of all, not only to provide goods and services to private consumers' conglomerates". (Bari, 2001)

Globalization is not only beneficial development, but also potential uncertainty and possible threats. Globalization may increase yields, reduce costs, offer choices for the taxation locations, competitive

advantage, increase company value and shareholder capital, profits generally, but as well risks and losses if these phenomena are not properly managed and maintained.

Business success will depend on management's response to globalization, how economic actors will know to answer to the global community needs.

In the current context of globalization, the organizations are some goals that will have to be met if high performance is desired:

- to switch from the idea of competition to the idea of collaboration, serving the world;
- to identify customer needs as they define them and to make this the main goal of economic actors;
- to recognize and invest for the benefit of global organizations;
- to recognize the fact that the organization is a sum of individuals, involved in and around its organizational structure;
- to have a global view of its actions.

We consider that investments of organizations to adapt their products and services and to develop new products and services specific to international markets are crucial to strategic success.

Globalization has led also to rethinking of the concept of ecology. In this context, organizations can gain a competitive advantage by investing in industries involved in pollution control, recycling resources, energy efficiency, environmental services and biotechnology.

The main strategies chosen by SMEs to entry on international markets must be strategic alliances, joint ventures, mergers, funds from international markets. In this context, we want to emphasize the fact that, if the beneficial effects of globalization of business are focused on: access to new markets previously inaccessible, easier access to raw materials with higher-value, amplifying and accelerating transfer of international managerial know-how, access to higher qualified labor wage at reduced costs etc, the management of Romanian organizations must manage, on the other hand, a number of specific issues, such as: changing infrastructure, legislative inconsistency, the interpretation of legislation, lack of internal labor markets flexibility or indifference towards environmental resources.

#### **4. The impact of globalization on human resource management**

It is well known that, by its nature, the globalization phenomenon affects in a bigger or smaller extent the directions of development of the activities of any organization but in terms of human resource management the following three aspects should be clarified:

- Can globalization and human resources be compatible partners?;
- What is the influence they have on each other?;
- Their goals are converging?;
- Does globalization imply harmonization at international level of the human resource management systems is different countries? (Ciobanu, 2009)

Globalization forces organizations worldwide to move people, ideas, products and information to meet local requirements. Moreover, globalization means lack of geographical constraints, which leads to the fact that well prepared people can work where they are needed.

Globalization and multinational companies expanding operations call for knowledge and understanding of international dimensions of human resource management. In the global context it is necessary to redefine the role of human resources, which should provide senior management the tools to respond to an international market characterized by a high degree of competitiveness.

Human resource management is the main instrument and means through which organizations can ensure competitive advantage and the strategic decisions of managers must always reflect a growing commitment to people.

Although globalization is one of the factors that determine the success of multinational companies in a market constantly changing, its multidimensional character generates a series of failures or problems and organizations must deal with it.

It is widely accepted that success or failure of organizations worldwide depends in a large extent on how employees are approached. Human resource is widely recognized as the creator of activity in an organization; it decisively influences the effectiveness of other resources: financial, material and information. In terms of continuously developing globalization, human resources should be managed as investments. And investment

in human capital - ensuring, maintaining, and motivating the development of human resources - represents the main premise in ensuring a competitive advantage.

One of the main objectives of the globalization process is the integration of human resource practices in a global model. This goal is difficult to accomplish because of differences between countries in economic, social, institutional and not least cultural matters.

According to Geert Hofstede, HR practices must reflect the cultural specificity of each country; companies must recognize that different kinds of people should be valued using different standards. The specific cultural context of each country has a major influence on human resources practices in the country. In many situations the rule that is valid in one culture may not be applicable to another.

Human resources professionals consider that the level of competence of human resources has a major influence in the process of integrating the human resource strategy in the strategy of the organization. Globalization eliminates national borders, as we have shown and people are the main factor that ensures organizations adaptability and flexibility, absolutely necessary to obtain success.

The frequent changes that occurred in the activity of multinational companies require increased attention to human resources, both in mother companies and in the subsidiaries. At the mother company, the human resource strategy and policies have to ensure the maintenance and development of managers capable to coordinate the activities at international level and in this regard, priority should be given to following human resource activities:

- human resources recruitment and selection;
- staff training;
- career management;
- employee motivation.

Nowadays, employees require more interesting and diverse jobs or tasks. Due to this fact human resource management must have a personnel policy oriented to value and this policy must begin with a rigorous selection.

Expatriate managers are connection between the mother company and its subsidiaries, they implement the mission and values of the mother company in its subsidiaries. At that level, the role of human resources is to develop human resources strategies and policies tailored to local, to ensure the quality of employees. The human resources department of the mother company has the main role in the implementation of human resource practices in multinational companies. (Ciobanu, 2007)

According to Michael Armstrong (2003), international human resources management becomes increasingly important in relation to human resources management developed within national borders for the following reasons:

- personnel problems generated by the variety of cultures, social systems and legal requirements;
- the need for direct personal contact, on-site cannot be replaced not even by the most sophisticated communication systems;
- complexity of the topic and of the managerial processes of human resource in the context of a mixed workforce.

On the other hand, changes in technology have created a new concept and the management of human resources must face them: the learning organization. It is the organization where (Corse, 2003) people continue to develop their capacity to create the results they really want, they have new and enhanced models of thinking, collective aspiration is freely accepted and people are continually learning how to learn together. Many managers and professionals have found that a learning organization is more likely to survive, being able to progress in the current uncertain conditions.

A set of rules (Chaşovschi, 2009) should be respected in order to obtain competitive advantage in respect of employees:

- Resources must be valuable: people are a source of competitive advantage when they involve with efficiency and effectiveness in achieving business goals;
- Human resources must be rare: knowledge, skills, abilities should not be equal to those of employees of other competitors;
- Resources must be organized because good results can be achieved when talent is combined and developed in work.

## 5. Conclusions

At the beginning of the third millennium, globalization has become a fact.

It is clear that globalization is a factor with major impact on human resource management. In the conditions of an increase in globalization, human resource management is one of the main tools through which companies can ensure their competitive advantage. According to specialists the main cause of failure for some European companies is the lack of understanding of key differences in the management of human resources in different countries. We consider that successful firms will be those who invest not only on the market but also in people, for them to be able to operate effectively in terms of different cultural and political environments.

We consider that the development of flexible workforces, capable of facing the 21<sup>st</sup> century, the globalization, the new technologies and the changes is a major request.

## 6. References

- Armstrong, M.(2003) Managementul resurselor umane, Editura Codecs, București
- Bari, I.(2001) Globalizarea și problemele globale, Editura Economică, București
- Bauman, Z.(2002) Globalizarea și efectele ei sociale, (traducere), Editura Antet, Prahova
- Bogdan, I.(2007) Managementul afacerilor internaționale, Editura Universității Lucian Blaga, Sibiu
- Bran, F.;Ioan, I.(2009) Globalizarea și mediul, Editura Universitară, București
- Castells, M.(1996) The Rise of the Network Society, Blackwell, Oxford
- Chașovschi C. (2009) Modificări preconizate în activitățile managementului resurselor umane în perioada următoare. Available at <http://seap.usv.ro/annals/ojs/index.php/annals/article/view/>
- Ciobanu, I. (2007) Influențele globalizării asupra managementului resurselor umane, Săptămâna financiară.Available at [http://www.sfin.ro/articol\\_7977/](http://www.sfin.ro/articol_7977/)
- Cors, R.(2003) What is Learning Organization?Reflections on the Literature and Practitioner Perspectives
- Dobrotă, N. (1999) Dicționar de economie, Editura Economică, București
- Giddens, A.(2000) Sociologie, Editura Bic All, București
- Giddens, A.(2001) A treia cale. Renașterea social-democrației, Editura Polirom, Iași
- Ruggie, J. G. (1996) Winning the Peace: America and World Order in the New Era, Columbia University Press, New York

# A SNAPSHOT OF ROMANIAN ECONOMY IN THE FIRST YEAR AFTER EUROPEAN UNION ADHESION

**GAFTEA Viorel**

*PhD, INCE, Romanian Academy, Postdoctoral Researcher in The "Economic scientific research, support for welfare and human development in European context" SOPHRD 89/1.5/S/62988, Bucharest, Romania, [gaftea@gmail.com](mailto:gaftea@gmail.com)*

**POPA Ancuța**

*PhD, Ministry of Economy, Trade and Business Environment - Managing Authority for the Sectoral Operational Programme "Increase of Economic Competitiveness", Bucharest, Romania, [ancutzapp@yahoo.com](mailto:ancutzapp@yahoo.com)*

**Abstract:** *To identify the economic sectors of national interest in order to modernize the national economy from European structural and cohesion funds in the period 2014 – 2020, the authors intend to examine some structural features of the Romanian economy – the intersectoral relations, the share of gross value added in output, and to determine the branches with the highest driving effects. For this purpose they will use the input – output model. The economic activities were grouped into 15 sectors by aggregating the extended input-output tables for Romania and the chosen reference year is 2008, first year after European Union accession.*

**Keywords:** input-output analysis, multipliers, structural, cohesion funds

**JEL Classification:** C67

## 1. Introduction

The European Union aims to eliminate the economic and the social disparities in the new EU member states through structural and cohesion funds. The structural and cohesion funds are instruments used to establish the cohesion policy adopted by EU. Structural and cohesion funds for the period 2014 - 2020 are considered to support the fundamental directions of the economic and social development of the EU, adopted in the Europe 2020 Strategy. This is a new strategic approach of the EU and includes the fundamental goals which EU plans to achieve, in the economic and social field, in 2020. In this strategy, the European Commission proposes three priorities that reinforce each other: *smart growth* - developing an economy based on knowledge and innovation; *sustainable growth* - promoting a more efficient economy in the terms of resource, greener and more competitive; *inclusive growth* - promoting an economy with a high rate of employment, ensuring social and territorial cohesion.

To achieve these objectives, EU also wants a more coherent use of the available funds: European Regional Development Fund, European Social Fund and Cohesion Fund. Thus, it is considered 3 categories of regions (according to GDP/capita): less developed regions (< 75% of EU average), transition regions (75 – 90%) and more developed regions (>90%). Given these lines of action, each country is to establish a defined number of national priorities and a centralized national program based on the local features and the needs of developing their economies.

Considering the aspects mentioned, Romania must take into account the mandatory elements required by European Commission but also the national specificities, which includes not only the effects of economic policies, but also the different aspects of natural resources, culture, and entrepreneurship.

The paper aims to analyze the structure of the Romanian economy to identify the economic sectors of national interest in order to modernize the national economy from European structural and cohesion funds in the period 2014 - 2020. Using input-output model we examined some structural features of the Romanian economy – the intersectoral relations, the share of gross value added in output, and we determined the branches with the highest driving effect. The paper is divided into the following chapters: Chapter 2 describes briefly the use of input-output model in economic research; Chapter 3 presents the methodology, the data used for the empirical research and the results.

In addition, because the analysis concern the first year before the economic crisis, we believe it is more useful to policy and economic makers, being presented before the new programming period for structural and cohesion funds of the EU in the period 2014 -2020.

## 2. The current state of economic research in the field

The input - output model or connection between branches analysis allows among others to estimate the cumulative impact (direct and indirect or induced) of various components of final demand on the productive sector. The propagated effects of final demand can be determined starting from the so-called technical coefficients matrix or Leontief matrix (named after the economist, Nobel laureate for economics, which use it for the first time in the economic analysis of inter-branch connections).

Using the input-output model it can be analyzed a very complex theoretical and practical problem, namely the interdependencies between compartments structures within the national economy. The main merit of the structural economic models is the attempt to quantify by using the coefficients the intensity flows between branches of national economy. This type of analyze provide the valuable elements to determine the conditions that are required in order to comply with the rational proportions of normal functioning of the economic complex.

The input – output model considers a simple structure of production expressed through a linear relation and with constant coefficients, containing several economic activities and processes, each producing one output. To produce a unit of a certain output, for instance the  $j^{th}$  output, requires a quantity  $a_{ij}$  of input  $i$ . Therefore, in the linearity conditions shown above, producing the output quantity  $X_j$  requires an input  $i$  quantity  $a_{ij} X_j$ , represented as  $x_{ij}$ . Essential for this model is the fact that “at least partly, inputs are themselves current outputs for the other processes of the system” (Lancaster, K., 1973).

On the basis of the cross-sectoral exchange table, the technical coefficients  $a_{ij}$  (matrix  $A$ ) were determined:

$$a_{ij} = x_{ij} / X_j \quad (1)$$

where:  $x_{ij}$  represents the part of sector  $i$ 's output used in sector  $j$ , and  $X_j$  the total output of sector  $j$ .

Introducing the final use (demand), denoted by  $Y_i$ , the interdependencies within the economy are quantified through:

$$X_i = \sum a_{ij} X_j + Y_i \quad (2)$$

Which, in matrix representation, is written as:

$$X = XA + Y \quad (3)$$

where  $A$  is the technical coefficients matrix,  $a_{ij}$ ,  $X$  is the column vector of total production branches, and  $Y$  is the vector of final demand. For the  $a_{ij}$  coefficients,  $i$  is the supplying branch and  $j$  is the beneficiary branch. By algebraic transformation we obtain:

$$(I - A) X = Y \quad (4)$$

where  $I$  is the unit matrix. We can estimate the production vector through  $y$  multiplier, as follows:

$$X = (I - A)^{-1} Y \quad (5)$$

where  $(I - A)^{-1}$  is the inverse matrix of  $(I - A)$  matrix. The condition that the system can be solved and accordingly the multiplier has real values, is the determinant of the latter to be nonzero.

The input-output model has proven to be a very useful tool for a detailed analysis on branches of the national productive system and therefore, for the government policies, but also for the businesses, especially for the foreign and domestic investors. Structural analyses were conducted for each year of the period 2000 – 2007, Voinea L. and other, (2010). The authors estimated the values for the total final demand multipliers and for its main components (household consumption, public consumption, investments and exports), using a national production system reduced to a 43 branches.

In the article published by Dobrescu E., Gaftea V., Scutaru C. (2010), the authors focused on the impact of gross fixed capital formation upon the output. On the one hand, the authors estimated the implications of changes in volume (for example, data for 2007 were recalculated for a variation of  $\pm 5\%$  in gross fixed capital formation), and on the other hand the influence of the sectoral structure of the gross fixed capital formation with the help of three different macroeconomic simulations.

Matei A. (2007) approached the problem of local development using, within the general framework of the input-output analysis, as vectors of development, the public utility services. The empirical application carried out in the Brăila Municipality refers especially to the multiplying effects of some activities or services within local economic development, as well as studies of impact and forecast on short or medium term.



In pursuing these studies and to identify the economic sectors of national interest in order to modernize the national economy from European structural and cohesion funds in the period 2014 - 2020, the paper aims to analyze the structure of post-accession Romanian economy, namely the intersectoral relations and the share of gross value added in output, and to determine the branches with the highest driving effect. Thus, it is presented a reference regarding the period of strong economic crisis we are going through and from which the economy must find the optimal ways to recover.

### 3. The model and the results on the structural features of the Romanian economy after EU adhesion

#### 3.1. The methodology used and the data

The research is based on the input-output tables for Romania with 105 branches from the last available year, namely 2008. The National Institute of Statistics recorded the data for 105 branches for the period 1989 - 2008. To make the estimates more relevant in terms of macroeconomic analysis and prediction, the 105 branches were aggregated into 15 sectors deemed representative for the current configuration of the Romanian economy. Table 1 explains the correspondence of the initial classification (105 branches) with the new more aggregated classification (15 sectors).

**Table 1: The aggregated sectoral structure**

Sector Code	Sector Name	Branch codes (of the classification based on 105 branches) included in the respective sector
<b>1</b>	Agriculture, forestry and fishing	1....6
<b>2</b>	Mining	7....17
<b>3</b>	Food, beverages and tobacco	18...27
<b>4</b>	Strong labor intensive sector	28....32, 77
<b>5</b>	High energy-intensive sector	33, 35....40, 43...59
<b>6</b>	Machinery, equipment and complex technological lines	60....65
<b>7</b>	High tech sector	34, 67....71
<b>8</b>	Means of transport sector	72.....76
<b>9</b>	Production and distribution of electric and thermal power	79....82
<b>10</b>	Other industry sectors	41, 42, 66, 78
<b>11</b>	Constructions	83
<b>12</b>	Trade and business	84, 96...97
<b>13</b>	Tourism	85, 86, 93
<b>14</b>	Transports, post and telecommunications	87...92, 94...95
<b>15</b>	Public services	98...105

This aggregation takes into account the main features of the respective sectors. Thus, the first group includes branches that significantly depend on the climate conditions. The output of the second one is essentially influenced by the peculiarities of the mineral deposits (due to the strong connection between the extraction and processing of oil, both are included in the manufacturing industries). All industries linked with agriculture are integrated into the third. The fourth comprises a large variety of labour intensive sectors - textiles, leather, pulp and paper, wood processing, furniture. The next one includes the industries that use a very high level of the energy resources (significantly higher than the national average). The sixth group covers the machine building branches, the seventh brings together the electrical and optical equipment industries, as well as the publishing houses, the polygraphy, recording and copying, and the eighth includes the industries for increasing the speed and/or the security of the transportation. This group of sectors has a crucial role in the investment process and modern civilization. The ninth group represents the quasi-generally used energy utilities. The rest of the manufacturing industries, characterized by a great heterogeneity, constitute the

seventh group. All infrastructures, productive and civil constructions are included in the next group. The twelfth aggregates the service activities. The travel services are reflected separately in the thirteenth group. The fourteenth one is dedicated to transports and telecommunications. Finally, the fifteenth group aggregates the public service activities.

### 3.2. The structural features of the Romanian economy

In this part we present some structural aspects of the Romanian economy revealed by matrix A of the input-output analysis. The analysed aspects are the intersectoral relations, the share of intermediate consumption and gross value added in output, and the relative contribution of domestic output to cover the intermediate consumption of the economy. We use the aggregate sectoral structure with 15 branches of the national economy, namely: Sector 1 - Agriculture, forestry and fishing, Sector 2 – Mining, Sector 3 - Food, beverages and tobacco, Sector 4 - Strong labor intensive industries, Sector 5 - High energy-intensive industries, Sector 6 - Machinery, equipment and complex technological lines, Sector 7 - High tech industries, Sector 8 - Means of transport industries, Sector 9 - Production and distribution of electric and thermal power, Sector 10 - Other industry sectors, Sector 11 – Constructions, Sector 12 - Trade and business, Sector 13 - Tourism, Sector 14 - Transports, post and telecommunications, Sector 15 - Public services.

A first presentation aims to examine the share of intermediate consumption (IC) and gross value added (GVA) in output, a first indicator that reveals the consuming sectors and those who obtain an outstanding efficiency.

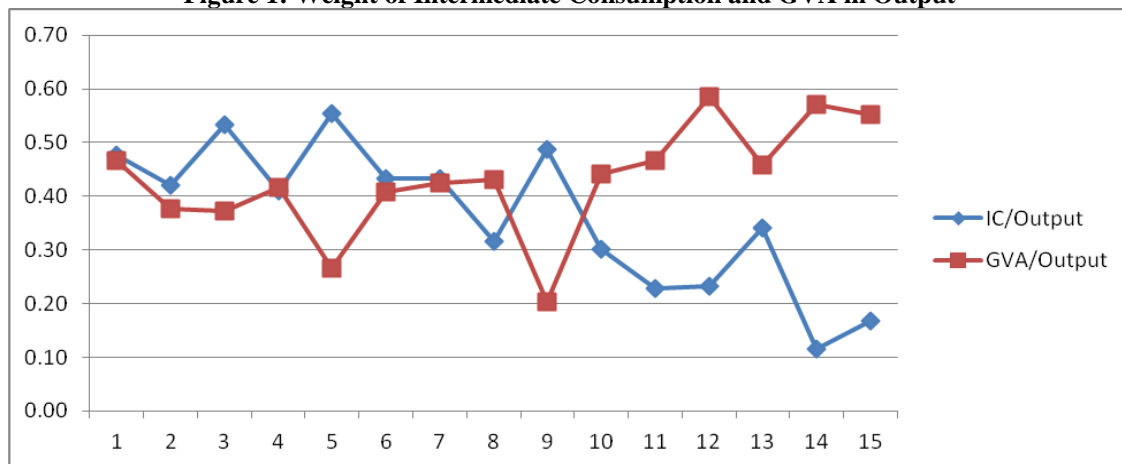
**Table 2: The weight of Intermediate Consumption and GVA in Output**

Sector	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
IC /Output	0.48	0.42	0.53	0.41	0.55	0.43	0.43	0.32	0.49	0.30	0.23	0.23	0.34	0.12	0.17
GVA /Output	0.47	0.38	0.37	0.42	0.27	0.41	0.42	0.43	0.20	0.44	0.47	0.59	0.46	0.57	0.55
Effective Output	0.06	0.20	0.09	0.17	0.18	0.16	0.14	0.25	0.31	0.26	0.30	0.18	0.20	0.31	0.28

Source: Authors' own computations

The estimation of the share of intermediate consumption and gross value added in the sector output is easily visible and presented in Figure 1. The row 'Effective Output' highlights the Sectors 1 and 3 by the difference from the unit of the shares of IC / Output and GVA / Output with the lowest rounded values 0.06 and, respectively, 0.09. The situation is presented in the following figure:

**Figure 1: Weight of Intermediate Consumption and GVA in Output**



Source: Authors' own computations

A second analysis is performed using the matrix and the input - output analysis. The technical coefficients matrix (A) for 2008 is presented in Table 3a.

**Table 3a: Technical Coefficients Matrix (A)**

Sect	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	0.34355	0.00157	0.19310	0.07758	0.00162	0.00026	0.00007	0.00008	0.00021	0.00700	0.00057	0.00750	0.05146	0.00040	0.00090
2	0.00001	0.24509	0.00073	0.00054	0.20904	0.01792	0.00800	0.00125	0.44151	0.00100	0.00676	0.00540	0.00254	0.00026	0.00270
3	0.02789	0.00091	0.26734	0.00979	0.00837	0.00319	0.00463	0.00308	0.00257	0.00835	0.00306	0.09626	0.19729	0.00381	0.02289
4	0.00722	0.00615	0.01165	0.19673	0.00872	0.00418	0.00459	0.01656	0.00134	0.08315	0.03352	0.02650	0.02881	0.00509	0.03046
5	0.07920	0.09217	0.04874	0.09931	0.28968	0.17017	0.15185	0.20894	0.02001	0.17363	0.14464	0.06836	0.04500	0.05954	0.05813
6	0.01558	0.05052	0.00772	0.02003	0.03102	0.20583	0.05092	0.04685	0.00899	0.01444	0.03293	0.01340	0.00535	0.01526	0.01104
7	0.00304	0.02305	0.00403	0.00632	0.00616	0.03051	0.21281	0.03832	0.01266	0.01444	0.00747	0.01604	0.01074	0.03193	0.04224
8	0.00275	0.00913	0.00159	0.00571	0.00435	0.00535	0.00188	0.09244	0.00106	0.00201	0.00144	0.00310	0.00270	0.01516	0.00553
9	0.01258	0.08056	0.03287	0.03318	0.08003	0.04819	0.02694	0.04026	0.24840	0.03354	0.01390	0.01545	0.03450	0.02913	0.03593
10	0.00307	0.00258	0.00170	0.00776	0.00199	0.00161	0.00121	0.00232	0.00053	0.12256	0.00090	0.00647	0.00778	0.00173	0.02642
11	0.00412	0.00588	0.00303	0.00508	0.00280	0.00319	0.00238	0.00322	0.00402	0.00363	0.14463	0.02056	0.02346	0.00514	0.00569
12	0.01522	0.01558	0.01607	0.01979	0.01499	0.02312	0.01670	0.01971	0.01107	0.01390	0.03027	0.08812	0.03465	0.01972	0.02824
13	0.00126	0.00471	0.00427	0.00460	0.00383	0.00547	0.00723	0.00416	0.00178	0.00799	0.00037	0.00294	0.02796	0.00480	0.00979
14	0.00703	0.03055	0.01719	0.02544	0.02719	0.02741	0.02755	0.03059	0.00684	0.03832	0.00985	0.02783	0.04242	0.18498	0.03412
15	0.01174	0.05456	0.01654	0.07280	0.04372	0.04497	0.05915	0.06080	0.03598	0.03494	0.10342	0.01684	0.02725	0.05227	0.13299

**Table 3b: Inverse Coefficients Matrix (I – A)<sup>-1</sup>**

Sect	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	1.54926	0.01650	0.41704	0.16487	0.02273	0.01526	0.01535	0.01664	0.01587	0.04200	0.01993	0.06637	0.17798	0.01181	0.02773
2	0.11241	1.54215	0.12885	0.15558	0.59287	0.24495	0.19742	0.22036	0.93875	0.19273	0.16598	0.10742	0.12319	0.10806	0.12269
3	0.07156	0.02306	1.39582	0.04262	0.03790	0.02813	0.02992	0.02756	0.02632	0.03594	0.02772	0.15717	0.30073	0.02209	0.05478
4	0.02435	0.02733	0.03413	1.26315	0.03452	0.02378	0.02397	0.04090	0.02434	0.13360	0.06640	0.04888	0.05559	0.01953	0.05793
5	0.23408	0.29548	0.20564	0.28098	1.57817	0.40510	0.37361	0.44285	0.24454	0.38759	0.33665	0.18987	0.18360	0.17809	0.18788
6	0.05357	0.12465	0.04579	0.06632	0.11419	1.30453	0.11870	0.11079	0.09816	0.06265	0.08380	0.04458	0.03949	0.04854	0.04507
7	0.02103	0.07020	0.02575	0.03583	0.05332	0.07653	1.29894	0.08392	0.07104	0.04719	0.03849	0.03864	0.03542	0.06727	0.07949
8	0.00881	0.02095	0.00823	0.01445	0.01776	0.01510	0.01002	1.11009	0.01576	0.01042	0.00863	0.00853	0.00928	0.02444	0.01212
9	0.07752	0.22362	0.11696	0.12605	0.25877	0.17077	0.13045	0.15603	1.48195	0.13824	0.10015	0.07633	0.11301	0.09496	0.10895
10	0.00896	0.01111	0.00816	0.01845	0.01155	0.00915	0.00881	0.01047	0.01016	1.14682	0.00981	0.01224	0.01504	0.00743	0.03859
11	0.01179	0.01672	0.01173	0.01448	0.01483	0.01235	0.01062	0.01198	0.01821	0.01237	1.17610	0.03102	0.03551	0.01202	0.01337
12	0.03954	0.04772	0.04536	0.04987	0.05320	0.05576	0.04662	0.05021	0.05103	0.04217	0.06130	1.11426	0.06294	0.04124	0.05243
13	0.00549	0.01276	0.01014	0.01137	0.01330	0.01327	0.01536	0.01154	0.01179	0.01544	0.00645	0.00741	1.03422	0.00995	0.01591
14	0.03570	0.08750	0.05499	0.07175	0.09502	0.08115	0.07965	0.08358	0.07307	0.09168	0.05065	0.06155	0.08478	1.25073	0.07444
15	0.05617	0.14596	0.06942	0.15331	0.15177	0.12784	0.14275	0.14440	0.15505	0.11161	0.19066	0.06283	0.08331	0.10901	1.19915

Source: Authors' own computations

Table 3a shows horizontally that for each sector the largest coefficients are related to their own inputs (values on the main diagonal). Naturally, significant inputs to the sector's output occur, for example:

- from sectors 4, 6, 7, 8, 10 to sector 5;
- from sector 5 to sector 2;
- from sector 9 to sector 2;
- from sector 11 to sectors 5 and 15;
- from sector 12 to sectors 5 and 3;
- from sector 13 to sectors 3, 9, 12, 14, 15.

Generally, the output conditioning of each sector on its inputs is high, which suggests that the direct cross-sector interdependencies are still low. However, for sector 5 the interdependency is high, its inputs being from 7 sectors. A future extension of the analysis to tables with 105 branches will highlight more accurately if this finding reflects the actual technological characteristics of the Romanian economy or it was induced (and in what proportion) by the aggregation operation (by using the classification based on 15 sectors).

Since the cross-sector exchange table is built in prices, the coefficients  $a_{ij}$  can sum up vertically ( $s_c$ ) and horizontally ( $s_r$ ); they are shown in the following table:

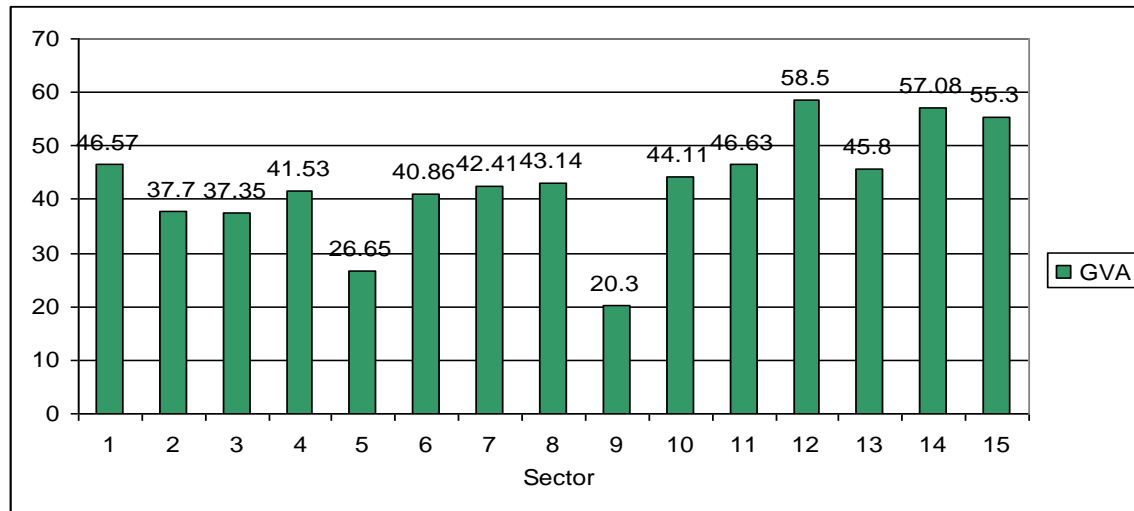
**Table 4: Total of  $a_{ij}$  Coefficients by vertical ( $s_c$ ) and horizontal ( $s_r$ ) summing**

Sector code	$s_c$	$s_r$
1	0.5343	0.6858
2	0.6230	0.9427
3	0.6265	0.6594
4	0.5847	0.4646
5	0.7335	1.7093
6	0.5914	0.5298
7	0.5759	0.4597
8	0.5686	0.1542
9	0.797	0.7654
10	0.5589	0.1886
11	0.5337	0.2368
12	0.415	0.3671
13	0.542	0.0911
14	0.4292	0.5373
15	0.447	0.7679

Source: Authors' own computations

Vertical totals ( $s_c$ ) estimate the share of intermediate consumption in the sector output. The difference from the unit approximates the share of gross value added in output. We may note that, without exception, the  $s_c$  values are below unit, thus confirming that in the aggregation used the gross value added is positive in all sectors. There are not notable differences regarding the size of the  $s_c$  itself. Based on the information provided by  $s_c$  we have calculated the share of gross value added in output, the values are presented in Figure 2.

**Figure 2: The share of gross value added in output (%)**



Source: Authors' own computations

Analysing Figure 2 we can find that the best placed sectors in terms of value added are (in order):

- Sector 12 - Trade and business, because of the trade markup rates and tariffs in the private sector. This result confirms the development of services sector in Romania.
- Sector 14 - Transport, post and telecommunications. The sector largely uses the high-skilled human resources and high-technology.
- Sector 15 - Public services. The public sector output estimates based costs, where wages are prevailing.
- Sector 11 – Constructions: as a result of the convergence process, but at the same time has a speculative component in the context of real estate boom generated in 2007. Since 2008 it began to feel a slow pace of development, correlated with lower economic growth amid of the international economic crisis.
- Sector 1 - Agriculture, forestry and fishing. The sector typically uses unskilled human resources and advanced medium technology. The high percentage of gross value added of this sector shows the specificity of the national economy with a high agricultural potential in comparison with other countries.
- Sector 13 – Tourism: due to significant growth of net use index and of number of tourists. By building the infrastructure mix (airports, ports, highways, rehabilitation of rural roads, rehabilitation of railways to increase the transport speed) the value added in another sector of the economy will increase (for example, construction).
- Sector 8 - Means of transport industries: has one of the most important driving effects in upstream industries. The sector use high-skilled human resources, advanced technologies and made products for increasing the speed and/or security of the transportation.
- Sector 7 - High-tech industries: makes products mainly for increasing the level of communication, creativity and knowledge dissemination and is characterized by a very high-skilled human resources and advanced technologies.
- Sector 4 - Strong labor intensive industries: textile, leather, pulp and paper, wood processing, furniture). The fundamental feature of the sector is the high use of unskilled workers. Also the sector dispose by medium-technology, its products being long used.
- Sector 6 - Machinery, equipment and complex technological lines. The sector employs high-skilled human resources, high-technology, and its products being designed to equip other industry sectors. It also produces the durable equipment for raising the home comfort.

The second part of the ranking includes:

- Sector 3 - Food, beverages and tobacco: strategic sector for processing the agricultural resources, its products are vital for the health of the population. Romania has the most important agricultural potential in EU, but is a net importer of food and drinks (the degree of coverage of imports by exports GA = 22.3% in 2009).

- Sector 2 - Mining. The sector employs the unskilled workers and disposes by medium-technology.
- Sector 5 - High energy-intensive sector. The mainly feature of the sector is the very high use of the energy resources (significantly higher than the national average), measured by the ratio of energy costs and value added. The sector use medium-skilled human resources (with some exceptions in the petrochemical industry), dispose by medium technologies (also with some exceptions in the petrochemical industry) and mainly produces intermediate goods used in other sectors of manufacturing industry or for the propulsion of the means of transport, the soil fertilization, the construction of buildings.
- Sector 9 - Production and distribution of electric and thermal power is still dominated by administered prices.

Results of horizontal summing from matrix A ( $s_r$ ) approximate (by the difference from the unit) the relative contribution of domestic output to cover the intermediate consumption of the economy. The highest deficit in this regard is in Sector 5 – High energy-intensive sector, indicating a high dependence by energy resources. At the opposite end stands Sector 13 (Tourism), mainly known as serving important segments of final demand.

### 3.3. Estimating the driving effect for the national economic branches

In this chapter we aim to estimate the driving effect of the national economic branches, observed due to output multipliers. We use the aggregate sectoral structure with 15 branches of the national economy, envisaged in the previous chapter.

The analytical valences given by the inverse matrix  $(I - A)^{-1}$  are known as numerical expression of interdependencies among the sectors of the economy – not only direct (indicated by the matrix A), but also indirect. Table 3b shows Inverse Coefficients Matrix  $(I - A)^{-1}$ .

Expressed in prices, the coefficients on the vertical – in the case of matrix  $(I - A)^{-1}$  – could also be summed up ( $S_c$ ). In fact, they approximate the output of all industrial branches induced by one unit of final demand addressed to the sector relative to the vertical in question (hence, in matrix  $(I - A)^{-1}$ , the coefficients on the main diagonal have over unit values). Vertical sums of matrix  $(I - A)^{-1}$  are also called *output multipliers*.

The  $s_r$  values resulted from matrix A do not involved the second quadrant of the input-output table. To make these values somewhat comparable with the corresponding sector  $S_c$ , we use the relation  $s_r^* = s_r + 1$ . The two sets of values ( $S_c$  and  $s_r^*$ ) are shown in Table 5.

**Table 5: Coefficients  $S_c$  and  $s_r^*$**

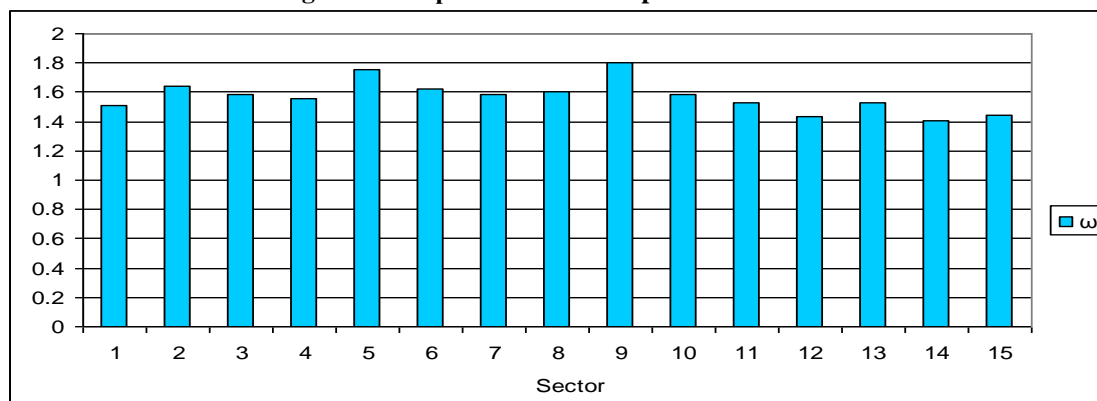
Sector Code	$S_c$	$s_r^*$
1	2.3102	1.5343
2	2.6656	1.6230
3	2.5780	1.6265
4	2.4690	1.5847
5	3.0498	1.7335
6	2.5836	1.5914
7	2.5021	1.5759
8	2.5213	1.5686
9	3.2360	1.797
10	2.4704	1.5589
11	2.3427	1.5337
12	2.0271	1.415
13	2.3540	1.542
14	2.0051	1.4292
15	2.0905	1.447

Source: Authors' own computations

The driving effect is expressed by the  $S_c$  value. The higher is the  $S_c$  value the greater is the driving effect. Among the sectors with the highest driving effect are: Sector 9 – Production and distribution of electric and thermal power, Sector 5 – High energy-intensive sector, Sector 2- Mining, 6 – Machinery, equipment and complex technological lines.

The difference between  $S_c$  and  $s_r^*$  is attributable to the way the effect of productive interdependencies within the economy is expressed. While  $s_r^*$  is limited to the direct ones,  $S_c$  adds to them the indirect interdependencies (mediated by the links between the related branches). Thus an index of output indirect drive determined as the ratio  $\omega = S_c / s_r^*$  is shown in graph  $\omega$  (Figure 3).

**Figure 3: Graph  $\omega$ - index of output indirect drive**



Source: Authors' own computations

In the case of matrix  $(I - A)^{-1}$ , the sums of coefficients on horizontals ( $S_r$ ), estimate the output required by the respective sector to ensure a unit increase in the final demand in all sectors of the economy. These values would not be comparable if they refer to matrices of different sizes. This aggregation effect can be mitigated by dividing them by the number of sectors, thus obtaining values associated with a variation by a unit of the final demand in the economy.

Their use for explanatory purposes still requires caution because they are based on the less realistic assumption of uniform modification in final demand in each of the sectors.

#### 4. Conclusions

The present paper reflected an analysis of the structure of post-accession Romanian economy to identify the economic sectors of national interest in order to modernize the national economy from European structural and cohesion funds in the period 2014 – 2020. Using the input-output analysis we identified the intersectoral relations, the share of gross value added in output, and the branches with the highest driving effects.

Generally, the output conditioning of each sector on its input is high, which suggests that the direct cross-sector interdependencies are still low. The results confirm that in the aggregation used, the gross value added is positive in all sectors. The sectors Trade and business, Transport, post and telecommunications, Public services and Constructions have the most important share of the gross value added in output.

One of the conclusions that can be drawn on input-output model is the driving effect due to output multipliers. For Romania, among the sectors with the highest driving effect are Production and distribution of electric and thermal power, High energy-intensive sector, Machinery, equipment and complex technological lines. It should not be overlooked the communication infrastructure and the transport that have a very special role in the revival of all sectors and for a sustainable and balanced development at the national level and for the integration into the European economic system.

*This work was supported by the Project "Economic scientific research, support for welfare and human development in European context" SOPHRD 89/1.5/S/62988.*

#### 5. References

- Dobrescu, E. (2009) Measuring the Interaction of Structural Changes with Inflation, *Romanian Journal of Economic Forecasting*, 10:5-99, Supplement 2009.
- Dobrescu, E.; Gafta, V.; Scutaru, C. (2010) Using the Leontief Matrix to Estimate the Impact of Investments upon the Global Output, *Romanian Journal of Economic Forecasting*, XIII (2), p. 176 – 187.
- Lancaster, K. (1973) *Analiza economică matematică*. Editura Științifică, București, p. 103.

- Matei, A. (2007) Empirical Approaches About the Input-Output Model for the Local Economic Development: Case Study in Braila Municipality, *International Journal of Public Administration in Central and Eastern Europe*, No.1, 2007.
- Miller, R.E.; Blair, P.D. (2009) *Input-Output Analysis: Foundations and Extensions*, Cambridge Univerity Press, Edition 2 (eBook).
- Voinea, L.; Albu L.L.; Busuioc, A.; Zgreaban, I.; Voicu-Dorobantu, R.; Popovici, V. (2010) *Reindustrializarea Romaniei: Politici si Strategii*, Asociatia pentru Studii si Prognoze Economico-Sociale.



# COMPARATIVE ANALYSIS OF CORPORATE GOVERNANCE IN CENTRAL AND EASTERN EUROPE

**GAVREA Corina**

*teaching assistant / Ph.D., Faculty of Economics and Business Administration/Department of Management,  
"Babeş-Bolyai" University, Cluj-Napoca, Romania, corina.gavrea@econ.ubbcluj.ro*

**STEGEREAN Roxana**

*associate professor / Ph.D., Faculty of Economics and Business Administration/Department of Management,  
"Babeş-Bolyai" University, Cluj-Napoca, Romania, roxana.stegerean@econ.ubbcluj.ro*

**Abstract:** *In Central Eastern Europe (CEE) the transition to market democracy significantly influenced the corporate governance practice. The region, demonstrates much more diversity in corporate governance than expected in generally similar transition economies. This research aims to focus on identifying the similarities and differences of corporate governance in these countries based on four research hypotheses formulated around two corporate governance variables: number of codes issued and years of distance from first code in the sample.*

**Key words:** corporate governance, shareholders, stakeholders, investors, corporate governance codes.

**JEL classification:** G30, M10

## 1. Introduction

Corporate governance has become an important topic in practice and academic literature in recent years. To ensure a competitive position, to attract capital, to ensure sustainability, and to combat corruption, companies from developing countries need to put in place good governance institutions. According to Monks and Minow (2004) the importance of corporate governance has increased dramatically in 2002 when a series of events led to the bankruptcies of large U.S. companies and the loss of thousands of jobs. The way companies are governed determines their fate as well as that of the economy in general. Failure to attract adequate levels of capital threatens the existence of firms which can have serious consequences for the entire economy. Firms that are unable to attract capital may remain outside of international markets entirely, while economies may not benefit from globalization. The investors are interested in those companies with good corporate governance because, according to OECD (1999), Corporate governance specifies the distribution of rights and responsibilities among different participants in the company, such as managers, shareholders and other interested parties, specifying the rules and procedures for making decisions on company's affairs. In this way, it also provides the structure through which company's objectives are set, the means of attaining those objectives and monitoring performance. Thus deficiencies in corporate governance can have as a consequence not only scandals and corporate liquidations but also financial crises and economic instability.

The Center for International Private Enterprise (2002) listed some of the main advantages of a strong corporate governance. These include:

- improved access to capital and financial markets;
- higher accountability and transparency;
- stimulation of performance;
- protection of shareholders and their investment;
- reduces the incidence of corruption;
- enhancement of marketability of goods and services

The list illustrated above gives a general image of the most important benefits of a good corporate governance. For developing countries, the problem of good corporate governance development becomes more complicated because of the underdeveloped institutional infrastructure. For this reason there is a need for a careful approach to governance restructuring.

A weak or absent corporate governance can have the following consequences:

- reduces the opportunities to attract sufficient capital, limits competitiveness and job creation;
- has a negative impact on employees' commitment;
- may lead to bankruptcy due to a lack of solid company strategy and leadership from the board of directors;

- allows company managers and directors to follow their own interests at the expense of shareholders, creditors, and other stakeholders;
- excessive regulation that impacts private sector growth (CIPE, 2002).

The CEE region, demonstrates much more diversity in corporate governance than expected in generally similar transition economies. This research aims to focus on identifying the similarities and differences of corporate governance in these countries.

## 2. Review of the literature: the concept and framework of corporate governance

The literature on corporate governance is extremely broad. Only in recent years hundreds of articles and dozens of books have been oriented toward corporate governance.

The concept of corporate governance began to take shape more clearly after 1997, in the European Union, when most countries have adopted codes of corporate governance. The impulse of adopting these codes has been the financial scandals related to the failure of British companies quoted on the stock market. On the other hand, the Asian economic crisis of 1997 and the withdrawal of investors from Asia and Russia had created problems for the international business community regarding the consequences of the investors lack of trust in corporate management.

Corporate governance principles developed by the OECD (Organization for Economic Cooperation and Development) provide specific indications, meant to improve the legal regulations. They formulate practical proposals to the attention of stock market authorities, investors and other pillars that have intervened in the governance of the company. Adapting corporate governance principles for the purposes of ensuring transparency, accountability and fair treatment of shareholders has resulted in the development of the OECD Principles of Corporate Governance. The principles underlying corporate governance should ensure the strategic direction of the company.

The concept of corporate governance encountered many definitions. Depending on their perspective, different authors define this concept in different ways. Thus corporate governance definitions can be groups in two categories: narrow and broad definitions. These two categories are illustrated below.

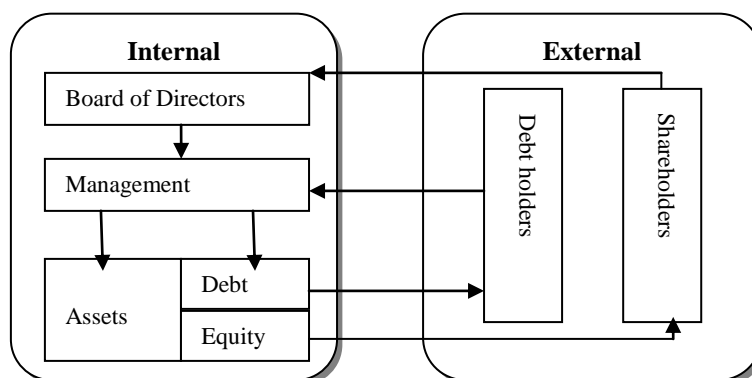
In a narrow sense, corporate governance can be defined as the relationship among various participants in determining the direction and performance of corporations. The primary participants are (1) the shareholders, (2) the management, and (3) the board of directors (Monks and Minow, 2004).

A broader definition was given by Cadbury Committee, 1992. Thus corporate governance was defined as the system by which companies are directed and controlled.

An even broader definition belongs to Zingales (1998). According to this author, corporate governance is the complex set of constraints that shape the ex post bargaining over the quasi rents generated by the firm. Many researchers consider that the corporate governance mechanisms fall into one of the two groups: those internal and those external to the firm. This aspect is illustrated in figure 1 which depicts the separation of ownership and control.

On the left side, figure one illustrates the internal governance and on the right hand side the external governance. The Board of Directors is charged with advertising and monitoring management and has the responsibility to hire, fire and compensate senior management team (Jensen, 1993).

**Figure 1. Separation of ownership and control – balance sheet model**



Source: (Adapted from Gillan, S. (2006): 382)

In conclusion we can say that there is no exact definition of corporate governance, not even in developed countries. All are based on the theory of interest holders. Interpretations of corporate governance refer to a set of relationships, distribution rights, set of rules, sector of the economy.

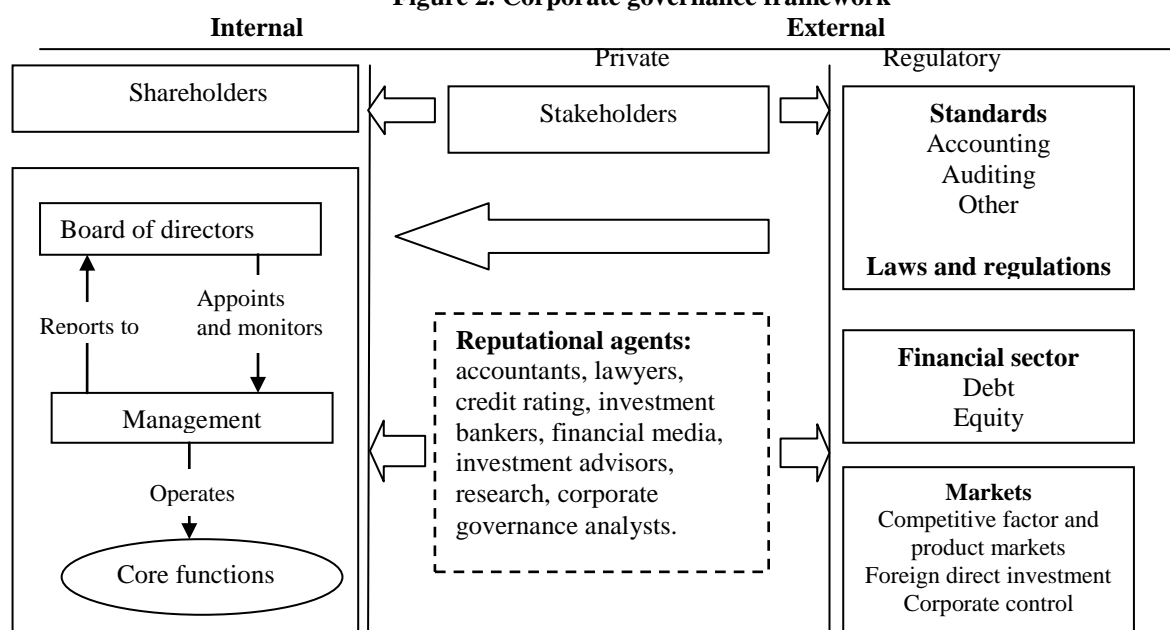
If we closer analyze Figure 1 we can see that firms are more than board, managers, debt holders and shareholders. A more detailed framework of corporate governance is depicted in Figure 2.

This is an expansion of the previous figure in order to examine a broader set of governance influence. As in Figure 1, the corporate governance framework is divided into two broad classifications: Internal and External Governance.

At the center of this system as an internal force, is the board of directors which is considered by many as the lynchpin of corporate governance (Gillan, 2006). Its overriding responsibility is to ensure the long-term viability of the firm and to provide oversight of management. In many countries the board is responsible for approving the company's major decisions and strategy and for hiring, monitoring and replacing the management (World Bank, 1999).

As previously stated the framework includes internal and external forces that face one another and have an impact on the activity of the existing corporations. The external forces are represented by policy, legal, regulatory and market. The role of the external forces is to strengthen the internal mechanisms for corporate governance.

**Figure 2. Corporate governance framework**



Source: (Adapted from World Bank, Corporate Governance: Framework for Implementation, Overview, 1999: 4)

Many authors and analysts consider that the problem of corporate governance has become increasingly important for developing countries. The challenge for these countries is to adapt systems of corporate governance to their own corporate structures and implementation capacities, in order to create a culture of enforcement and compliance.

### 3. Corporate governance in Central and Eastern Europe

In the past years the economies of the Central and Eastern European (CEE) region have registered rapid growth rates. Foreign investors have been setting up throughout the region and the privatized businesses have also been expanding.

A large amount of laws and regulation have been adopted in these countries over a short period of time. Many of these laws have been imposed from the outside, as part of the EU accession process or copied from the UK or US. This is why we expect to observe some differences between the CEE countries that are EU members and those that are not. Ensuring the implementation and sustained enforcement of these laws is another challenge facing the countries from Central and Eastern Europe.

Compared to the CEE countries the countries from Western Europe have seen far more corporate governance developments in recent years, ranging from the Cadbury Report in the UK to the Vienot Report in France. Regarding the disclosure and transparency compliance with the Organization for Economic Co-operation and Development requirements in European countries, according to Ștefănescu

(2011), the level of provisions related to disclosure and transparency stipulated in corporate governance codes are influenced by their issuer's type and diversity.

Based on the aspects mentioned above we can formulate the following research hypotheses:

*Hypothesis 1:* CEE countries are less prone to develop codes than the Western European countries.

*Hypothesis 1(a):* CEE countries members in the EU are more prone to develop codes than those that are not members in the EU.

*Hypothesis 2:* CEE countries issue codes later than the Western European countries.

*Hypothesis 2(a):* CEE countries members in the EU will issue codes before than those that are not members in the EU.

#### 4. Research design

##### Sample and data collection

Our sample includes 15 countries from Central and Eastern Europe and 6 Western European countries (Austria, Germany France, Denmark, Sweden and Finland). Table 1 includes a summary of the most recent code in each country from CEE structured by the year and the issuer. The countries included in our sample were further divided in two groups based on the European Union membership of each country.

In order to analyze the development of corporate governance in these counties we used secondary data analysis, more specifically reports or statistics offered by: European Corporate Governance Institute (ECGI), World Bank Reports (ROSC Reports) and the European Bank for Reconstruction and Development (EBRD) reports.

**Table 1. Country, year and issuer of the most recent corporate governance code**

Country	Year of last code	Issuer of last code	Last code
Estonia	2006	Tallinn Stock Exchange	Corporate Governance Recommendations
Latvia	2010	NASDAQ OMX	Principles of Corporate Governance Recommendations on their implementation
Lithuania	2003	National Stock Exchange Lithuania	Corporate Governance Code for the companies listed on the National Stock Exchange of Lithuania
Poland	2010	Warsaw Stock Exchange	Code of Best Practice for WEE Listed Companies
Czech Republic	2004	Czech Securities Commission	Corporate Governance Code based on OECD Principles
Slovakia	2008	Central European Corporate Governance Association	Corporate Governance Code for Slovakia
Hungary	2008	CG Committee of the Budapest Stock Exchange	Corporate Governance Recommendations
Slovenia	2009	Ljubljana Stock Exchange	Corporate Governance Code
Bulgaria	2007	The Bulgarian Stock Exchange	Bulgarian National Code for Corporate Governance
Romania	2009	Bucharest Stock Exchange	Corporate Governance Code of Bucharest Stock Exchange
Croatia	2010	Zagreb Stock Exchange	Corporate Governance Code
Bosnia-Herzegovina	2006	Banja Luka Stock Exchange	The standards of Corporate Governance
Serbia	2008	Belgrade Stock Exchange	Corporate governance Code of Belgrade Stock Exchange
Montenegro	2009	Montenegro Stock Exchange	Corporate Governance Code of Montenegro
Turkey	2005	Capital Markets Board of Turkey	Corporate Governance Code and Principles

## 5. Data analysis

In order to test our two hypotheses we used the t-test for the difference of means for the number of codes issued and the years of distance of first code. The results are included in table 2.

**Table 2. t-tests for difference of means on the years of distance and number of codes**

	CEE countries	Western European countries	CEE countries members of the EU	CEE countries not members of the EU
Years of distance from first code	6.53* (0.72)	2.66 (0.71)	2.30* (0.66)	6 (1.14)
Number of codes issued	1.93* (0.3)	8.17 (2.99)	2.20 (0.41)	1.40 (0.24)
Number of observations	15	6	10	5

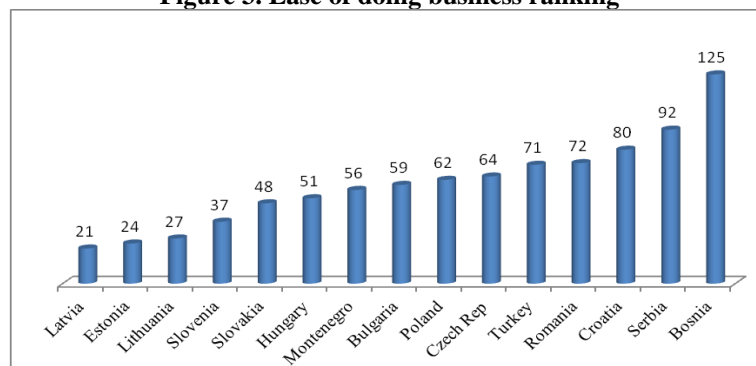
\* $p < 0.05$ . Standard error in parentheses.

Our results show that CEE countries issued codes later than the Western European countries and the CEE countries not members of the EU issued codes later than those that are EU members. Also the difference of means for the distance of the first code in the sample is significantly different ( $p < 0.05$ ) for both situations which validates our second set of hypotheses 1 and 1(a). The average distance from the first code (1998) in CEE countries was 6.53 years compared to 2.66 years in Western European countries. Also the average distance from 2001 in the second situation was 6 years for the CEE countries not members of the EU and 2.3 years for those that are EU members.

Moreover, we can observe that the Western European countries are more prone to issue codes than CEE countries the difference of means between the two sets is also significant, which validates our first hypothesis. Regarding the two groups of CEE countries we can observe that there are some differences between the average number of codes issued (2.20 for CEE countries members of the EU and 1.40 for CEE countries not members of the EU) but according to the results of the t-test these differences are not significant which does not validate the hypothesis 2(a).

Emerging markets, particularly those from Central and Eastern Europe, represent a great interest to investors as they indicate greater growth potential and higher returns. In order to attract capital, remain competitive and ensure credibility of their business, companies must seek to establish exceptional corporate governance standards. This is why we considered useful for our study to illustrate the overall ease of doing business rank (out of 183 economies). The ease of doing business rankings are illustrated in Figure 3.

**Figure 3. Ease of doing business ranking**

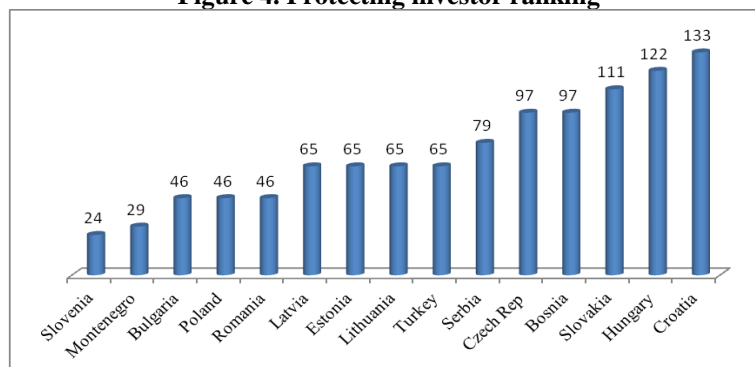


Source: (Doing Business Report, 2012, World Bank)

As we can observe, except for Romania and Montenegro all the countries from CEE that are EU members have higher rankings than those that are non EU members.

We chose to illustrate also the investor protection index (Figure 4), which is a component of the overall ease of doing business because we consider it to be very relevant to our study. The Investor Protection Index consists of three dimensions of investor protection: transparency of transactions (Disclosure Index), liability for self-dealing (Director Liability Index) and shareholders' ability to sue officers and directors for misconduct (Shareholder Suits Index).

**Figure 4. Protecting investor ranking**



Source: (Doing Business Report, 2012, World Bank)

As we can observe the results regarding the protecting investors are very mixed. The second place is occupied by Montenegro which is a non EU member while the bottom places were occupied by 2 EU member countries: Slovakia and Hungary.

## 6. Conclusions

To analyse the corporate governance situation in CEE countries we used a sample of 15 countries further divided in two groups: those that are EU members and those that do not have this membership. For a better insight we contrasted the results on two corporate governance variables (years of distance from first code and number of codes issued) for the CEE countries with the results for the same variables registered in 6 Western European countries. Based on the t-test results there are significant differences between these two set of countries on the two variables considered.

The results of this paper also show the differences of corporate governance in CEE countries. The most significant difference was demonstrated to be between the CEE countries that are EU members and those that are not regarding the years of distance from the issuance of the first code in the sample.

## Acknowledgements

This work was supported from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/1.5/S/59184 „Performance and excellence in postdoctoral research in Romanian economics science domain”

## 7. References

- Cadbury Committee (1992). *The Report of the Committee on the Financial Aspects of Corporate Governance*, London.
- Center for International Private Enterprise (2002). *Instituting Corporate Governance in Developing, Emerging and Transitional Economies: A Handbook*. Washington, DC: The Center for International Private Enterprise. [www.cipe.org](http://www.cipe.org).
- Gillan, S. (2006). Recent developments in corporate governance: An overview, *Journal of Corporate Finance*, 12: 381-402.
- Jensen, M.C. (1993). The modern industrial revolution, exit, and the failure of the internal control systems. *Journal of Finance*, 48, 831-880.
- Monks, R. and Minow, N. (2004). *Corporate governance*, 3<sup>rd</sup> edition. Blackwell Publishing.
- Organisation for Economic Cooperation and Development (1999). *Principles of Corporate Governance*. Paris: OECD.
- Ștefănescu, C. A. (2011), Transparency and disclosure in European corporate governance codes – Does issuer matter?, *Studies in Business and Economics*, 6(1): 94-108.
- World Bank (1999). *Corporate Governance: Framework for Implementation*, Overview.
- Zingales, L. (1998). Corporate governance, *New Palgrave Dictionary of Economics and the Law*, 497–503.

# **SOME CONSIDERATIONS ON THE MEETING OF PATIENTS. CASE STUDY: CHRONIC DISEASE HOSPITAL SMEENI - BUZAU**

**GIRBAN Marilena Gela**

*Ph.D. student, Doctoral School/Department Management, "Valahia" University, Targoviste, Romania, marilena.girban@yahoo.com*

**PARGARU Ion**

*Professor, Faculty of Entrepreneurship Engineering and Business Administration/ Department of Economic Engineering, University Politehnica of Bucuresti, Bucharest, Romania, pargaruion@yahoo.com*

**Abstract:** Recently, many health systems in the world in their heart patient's needs. The Romanian system is no exception to this trend. Quality health care is no doubt an evaluating of patient satisfaction.

The purpose of this article is to analyze how the perception of quality medical services according to perceived needs of patients when you can call the doctor. Research methods used were: documentation, technical survey and comparative analysis with other countries, and expected results are the level of satisfaction of patients, correlated with a medical provider and available resources.

**Key words:** satisfaction questionnaire, quality assessment, patients, health systems, performance management

**JEL classification:** I 10 – health general

## **1. Introduction**

Quality medical services that benefit patients in Romania is a topic extensively dissected. Theme topic is not based on lack of resources, which is often correlated with service quality evaluation and satisfaction of patients, but efficient and effective use of those available.

European health systems and beyond, have changed focus from general to particular, from institutions to the patient to better identify needs and to tailor treatments ingirijire the sick and not a disease.

An important component of evaluating the quality and efficiency of care and patient satisfaction is. As an indication of defense and felt needs for care of patients, patient satisfaction, although it contains a high degree of subjective factor and often not directly related to the medical act itself, but rather with administrative services, hotels, attitude and behavior of personnel entering patient contact.

The present study concerns a comparative analysis of the level of satisfaction expressed by patients in the current funding of service providers. The case study concerns a chronic disease hospital in Buzau County, located in a village, 20 km from the county town, the only hospital of its kind in the area.

A questionnaire method was used, for the year 2011 and first quarter of 2012.

Events and events were conducted in the foreground with the patient and the results are shown below.

For an overview of overall patient satisfaction is the degree of response to their expectations. These expectations, the waiting time at the emergency room until the room air temperature, the appearance of food and bedding to cyclical change and general hygiene, not least respect infomarea hours of treatment or on medication, listing only a few indicators of satisfaction, reflects what the patient wants to achieve and the impression is what has been, rather than disease stage and treatment response.

## **2. The conceptual framework**

As a structure, defined by the Health Act, the Romanian system is composed of several actors:

- health care providers - primary care (GPs), secondary care (ambulatory and medical practices speciaity), tertiary (hospitals) and the Quaternary (rehabilitation).

- insurer - currently represented by the National Health Insurance and the county - third party payer

- patient - care recipient.

### *Service providers*

Primary care is provided by family doctors. The most common type of organization is their individual medical office, but there is a growing number of civil society than medical.

General practitioners provide primary care medical services to patients insured by health insurance system, their lists (without pay) or other medical lists of family and uninsured patients (fee). General practitioners have the owner / legal representative, a family doctor. They provide preventive care, curative and emergency recovery.

This differs significantly from medical services before 1998, when primary care was provided by a large number of dispensaries of various types: local, school and business. They were given territorial area hospital. Patients were repatizati, having no choice option advice.

With the reorganization in the CMI, or other forms of organizational, patients were given the right to choose their doctor, they were paid per capita (for each patient enrolled in the list), which was introduced competition between service providers primary care. An attempt was also an increased role in filtering GP patients to other medical services.

Family doctors are independent suppliers are no longer employees. Manages its own budget and enter into contract with the Health Insurance.

Secondary care include specialized care: ambulatory, ambulatory integrated hospitals, clinics, diagnostic and treatment centers, medical specialty civil society, etc.

Ambulatory care units are particularly suited for outpatient health care. They are either legal entities or the structure of a hospital (outpatient integrated). Those providing medical treatment for medical specialty for which they were intended. Generally, they have one specialty, but there are cases which are grouped several related medical specialties. Services provided are preventive, curative and emergency recovery. In these types of units can take place and educational activities.

Hospitals or clinics are unincorporated, which provides specialized care in many specialties, outpatient. They work in the public system (paid and unpaid) or the private system, providing preventive care, curative and emergency.

Diagnostic and treatment centers are hospitals providing the care specialty beds featuring day. These were mainly the task of diagnosis, treatment and outpatient treatment recommendations.

Tertiary care - provided by hospitals, sanatoriums, preventoria, social medical units - mostly belongs to the public sector.

Hospitals are hospitals (public, private public and private sections) with beds, public utility, with legal personality, which provides medical services to persons hospitalized or attending outpatient health insurance population. Under health reform law, which provides preventive care, curative and palliative recovery. The organizational structure comprises of a hospital if necessary: wards, laboratories, diagnostic and treatment services, departments, services or technical offices, economic or administrative, pre-hospital care services and emergency transport, emergency receiving structures. Hospitals may have the structure of specialized outpatient services, day hospital services, home care and outpatient laboratory services. Hospitals are required to operate and research medical education for physicians, nurses and other medical and non medical staff.

Nursing is bedded hospitals providing medical care using natural healing factors, associated with other methods, techniques and therapeutic means. There are units with legal personality and is organized as tuberculosis sanatoriums, sanatoriums sanatoriums of neurosis or spa for various specialties (impaired motor, cardiovascular, digestive, renal, etc.).

Preventoria are hospitals with beds, with legal personality, which provides prevention and combating of tuberculosis in children and young people, and in patients with clinically stable and non-contagious tuberculosis.

Health centers are hospitals with beds that provide health care specialist at least two specialties, the population of several adjacent locations.

Social medical units specialized beds are public institutions with legal personality, subordinated to local authorities, which provide people with medical needs social care services, medical services and social services.

Romania has chosen to reform the public health system, Beveridge model the transition from one based on health insurance. Changes in health care last year but did not solve the problems of services, the system currently one hybrid, innovative in this regard.

Reforming health services continued in 2010 producing significant changes in health system infrastructure and personnel structure involved in providing health services, both public sector and in private.



Network health units recorded in 2010 significant changes. Thus, the number increased by 29 hospitals, 5 outpatient at the hospital's integrated with that of the 353 dental offices and pharmacies with 340 numbers, points of pharmacies and drug stores work. The network of medical units in 2010 were separated institutes and institutions without beds, the total land is 108 such units.

Previous year, in 2010, distribution prinipalelor health units in Table 1 is as follows:

**Table 1:** Number of health units in the main categories of units

Health units	2009	2010	In 2010 compared to 2009
			Differences (+/-)
Hospitals	474	503	29
Polyclinics	268	311	43
Dispensaries	211	204	-7
TB sanatoria	5	4	-1
Preventoria	4	4	-
Spa sanatoriums	7	7	-
Medico-social units	68	68	-
Specialty ambulatory	69	75	6
Integrated outpatient hospital	392	397	5
Family medical	1390	1170	-220
GP surgeries	1055	1000	-55
Dentist	1683	1236	353
Medical specialty	998	8870	-1128
Civilian medical societies	108	110	2
Civil society dental care	165	159	-6
Civil society specialist medical	251	218	-33
Pharmacies, pharmacy outlets and drugstores	7586	7926	340

Source: INS – activities of medical units in 2010

### *Insurer – payer*

Health insurance is a unique combination, because, despite the transition from a centralized system based insurance system still has a strong social character, which is why large sections of the population are covered by the insurance without contribution person's financial or other State body. Also, health services are covered by insurance for home wife of a man who pays insurance for pregnant women and other smaller categories of beneficiaries.

Health insurance system is an innovative hybrid because, despite the move to insurance-based system, the system still has a strong social character, which is why large sections of the population are covered by the insurance without contribution from the person or other State body. Also, health services are covered by insurance for home wife of a man who pays insurance for pregnant women and other smaller categories of beneficiaries.

On the other hand, social health insurance financing system changed, but made minor changes in the package of services that are offered to policyholders. Except for medical services cosmetic surgery and / or requiring hospitalization conditions with increased comfort and medical services performed at the request of the patient without a medical recommendation in this regard, access is theoretically possible to any medical service recommended.

Limiting access to specific services considered essential and would lead to cost control was a concern of all countries that use the health insurance system, so far no system not finding convenient way to introduce this measure. From this point of view the population has not experienced a major change in the new law. Nedefinirea minimum package of health services is that CNAS impose financial limits: the cap on doctor prescriptions offset, limit the number of

admissions and discharges; cap recipes offset, limit the number of medical tests. With limited financial resources have been found, therefore, other ways of limiting the number of services and therefore cost: access to specialist services, generally more expensive, is permitted only with referral from your family doctor, laboratory investigations and laboratory are allowed only in relation to diagnosis and can be prescribed only by certain doctors, prescriptions for compensated and free drugs are limited in number and the amount prescribed drugs per prescription.

Given that it is in a new healthcare reform package, we stop here to analyze the two actors of this trivalent system. In fact, the present study especially interested in the third.

#### *Recipient - the patient*

Patient, insured or not, paying or not uniquely call service providers. Filtering disease is by your family doctor on whose list it is.

Here begins our analysis on expectations that the satisfaction or dissatisfaction has. The indicators can be analyzed at this level are:

- waiting time in the schedule (days, weeks, etc..) and to the consultation room
- attitude of the doctor and medical staff
- time for consultation
- quantity and quality of information on disease and treatment prescribed
- medical equipment available
- investigations required
- look cabinet: temperature, hygiene, furniture

About the same indicators are relevant and if it servicii furniorilor secondary care. Weight are significant differences in terms of further investigations and communication with other providers, hospitals and family doctors for the disease and continuation of treatment.

### **3. The operational. Case Study: Chronic disease hospital Smeeni**

To assess patient satisfaction, the study was a hospital for chronic diseases in Buzau, only such a category in the county. Given that in 2011, the reorganization and restructuring of hospitals were closed or reassembled 3 hospitals, answer questionnaires and interpretation are affected by the fact that patients who responded were still in a position to benefit from these services at this level (about home, with doctors whom know the history of the disease and have high confidence in).

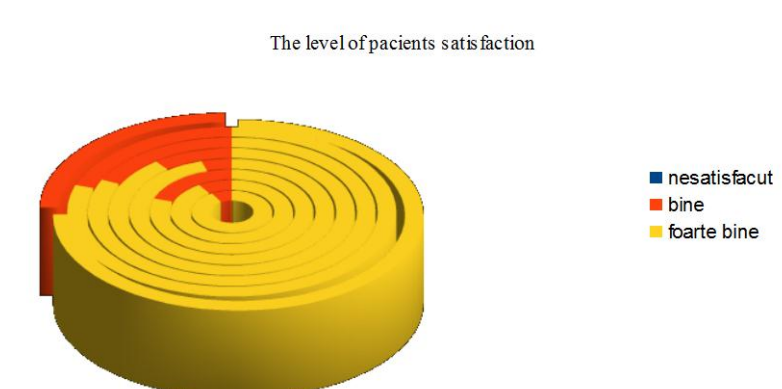
The research was conducted from January 2011 - March 2012.

Number of patients surveyed was 1200 – all hospitalized in this period

The number of respondents was 1005.

The questionnaire included 11 questions and one point for comments and suggestions and referred to sex, age, department and date of admission, the hospital attendant (personal health, individual carers), the score for the accommodation, cleanliness, food, staff, attitude to admission, time to the doctor for consultation, training on the administration of drugs, if drugs were provided by the hospital, patients or both purchased and on what basis, when treatment has been satisfactory, overall impression, if necessary would choose this hospital again.

**Figure 1: answers to questions 2 - 9**

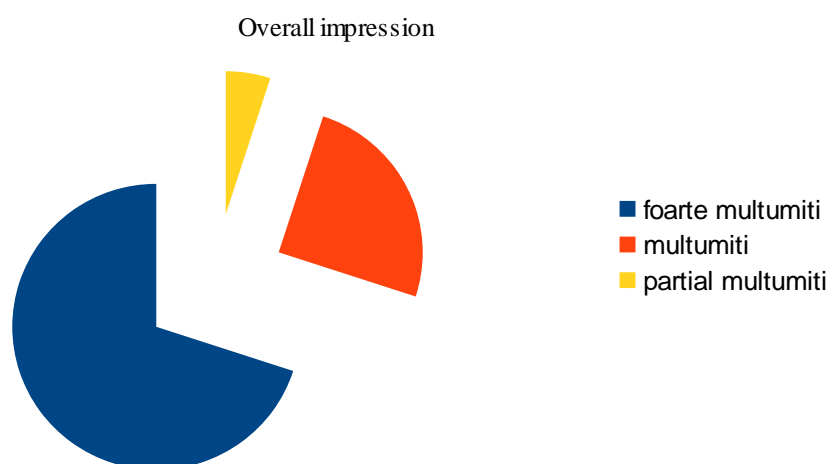


The questionnaires were anonymous, respondents were in number 500 men and 505 women, aged between 20 and 84.

The analysis of responses to questions 2 – 9, responses were noted in most part, with honors, “verygood”, only six food with a number of respondents who said “partially satisfied”.

To question 10 (overall impression), the responses were: ~ 70% of patients said they were very satisfied, on a scale from 1 to 4, the quality of medical and administrative services, without comments and suggestions or complaints; ~ 25 of respondents patients – were generally satisfied with services received, with positive feedback, especially about the attitude of medical staff and hotel conditions. ~ 5% of patients said they were satisfied / partially satisfied - the main suggestions / complaints are related to environmental conditions during summer, possibilities of entertainment (television, newspapers).

**Figure 2: Overall impression**



No significant differences were observed between men and women. Respondents aged under 40 were more active in terms of suggestions.

Although this questionnaire is available online on its website, it has received only test its response, the reason probably being that the audience does not use this information channel.

#### *Open Day at health day - April 7, 2012*

This event took place on 2 April 2012 and focused on aging and what can healthcare providers to help people grow old suits beautiful and worthy.

Elderly were invited – or assisted hospitalized during that period of a center forthe elderly, located near the hospital.

The objective of this event was popularizing the patient leaflet, released on the same occasion, and the package they offer institution, collaboration with other institutions, like the county Department of Public Health, Health Insurance House, City Hall and Local Council of in whose administration the hospital is, ambulance district, etc..

Also at this event was shown a movie in which patients were interviewed on various conditions which gives hospital.

Aside from the inherent subjectivity of a filmed interview, which may induce some error, commonly manifested as the expression on hospital doctors and care staff are the first and second place is the hotel conditions, observing a high degree of satisfaction of patients hospitalized at the time in hospital.

In addition, the events are invited to participate in hospital, creating an improved tone of both patients and the employees, with positive effects on health care.

Although this event could not quantify the impact on patient satisfaction, showed the difference between what the patient receives according to his expectations and what matters in terms of health.



**Figures 3 , 4:** Images from open day

### 3. Conclusions

The 2012-th patients are informed, documented, know their rights and, especially, have well-established expectations of caregivers. Therefore, it seems impossible at times, thank you, from all points of view, a patient, given that, suffering with pain, may cause subjective communication barriers.

However, sometimes it takes very little for a patient to be fully satisfied by the treatment.

On the other hand, the most expensive medicine in the modern hospital, a patient can lead to unhappy state, for a simple reason such as lack of explanations from the doctor regarding the condition or treatment, and, often, for bland food, although adequate in terms of composition.

Overall satisfaction of patients is indeed almost impossible, in real terms of financing, reform of the system and endless staff remuneration, ridiculously low relative to system requirements. However, by preparing and appropriate stimulation administrative and medical staff in hospital at similar hospitals in developed countries, to achieve a maximum degree of patient satisfaction or very high.

### 4. References

- INS – Public unit activity in 2010 -[www.ins.ro](http://www.ins.ro)
- Law 95 /2006 – Health insurance law with subsequent amendments
- (Vlădescu and Stănescu, 2004) - „*Public health and health management. Health systems*”, Ed. CPSS (Center for health policy and services)
- (D. Mincă, M. Marcu, 2004) - „*Public health and health management*”, București, Ed. Universitară „Carol Davila”.
- (I. Plumb, 2003), „*Health and social health insurance*” – No.1 issue of Administration and Public Management
- (L. Drugus, 2002), „*Health management*” – Ed. Sedcom Libris, Iași, Iași

# SUSTAINABILITY MANAGEMENT IN ROMANIA: CHALLENGES AND OPPORTUNITIES

**GRECU, Valentin**

*Teaching assistant, Ph.D. student, Faculty of Engineering, "Lucian Blaga" University, Sibiu, Romania,  
valentin.grecu@ulbsibiu.ro*

**DENES, Călin**

*Professor, Ph.D., Faculty of Engineering, "Lucian Blaga" University, Sibiu, Romania, calin.denes@ulbsibiu.ro*

**Abstract:** *In a world facing increasing environmental, social and economic challenges, business companies have been charged with the task of aligning their processes and services with a sustainability agenda. However, the concept of sustainability is complex, interdisciplinary and contested. The study consisted of an exploratory analysis looking at the importance given to Education for Sustainability by Romanian companies from which to begin to sketch the landscape of sustainable innovation in Romania. The study raises implications at the University/Industry interface with regard to the preparation that is offered to future leaders and employees in order to pursue sustainable innovation.*

**Key Words:** Romania, education for sustainable development, corporate social responsibility, sustainable business.

**JEL classification:** Q56

## 1. Introduction

Many of the challenges associated with sustainable development (SD) can be traced back to the ways in which modern societies produce and consume. The production, distribution, and delivery of goods and services require inputs of materials and energy, impacting the natural resource base both quantitatively and qualitatively, with the generation of waste and pollution and general disorder of the ecosystems (Petry et al, 2010).

A good management of environmental services has now become the focus of many business strategies tending to the aspiration of 'greening' their infrastructures and product deliveries. The growing demand for "green" products has created major new markets in which visionary entrepreneurs reap the rewards of approaching sustainability (IISD, 2010). Hence, by adopting sustainable practices, companies can gain competitive advantage, increase market share and boost shareholder value. Moreover, large and small companies may combine an environmentally-friendly approach to production with an increase in profitability, by pursuing a high efficiency model, as well as achieving better community relations (Genesis Renewable Energy Inc., 2011). However, it seems that many companies have not fully committed their most important resource to innovation- their employees. Every day, employees within an organization make decisions with long-term consequences on the environment and society and are therefore directly involved in any potential innovation the company may seek to pursue.

This paper is focused on the importance given to Education for Sustainability by Romanian companies. Romania is a country of the former Eastern bloc which has experienced fast economic growth in recent years and it is aligned with foreign development policies, with a greater role played by private investments in the pursuit of technological innovation (Nemoianu Istocescu, 2008). Recently, sustainable development has started to feature on the Government's development strategy (NSSDR, 2008). This study consisted of an exploratory analysis looking at the importance given to Education for Sustainability by Romanian companies with a view to begin a discussion on the particular position of Romanian companies within the debate on sustainable innovation in business. We argue that discursive tensions may exist between the globalized ideas of economic growth and the localized needs of Romanian workers who seek more involvement in the pursuit of sustainable strategies. In such conditions, a more complex understanding of employees both as workers and civic actors can play an important role in shaping the future of the country's sustainable strategies.

## 2. Background: Economic growth versus Sustainability

Sustainability and sustainable development belong to the category of contested concepts which hold different meanings for different actors and bring forth a variety of different ways of framing the problem at stake. An important and strongly debated aspect in sustainability is the relationship between

economic development and the environment. As reported by Cole (1999), on the one hand global institutions and national governments typically argue that only economic growth can provide the resources with which to tackle environmental problems. Along with this idea, there is the belief in technological innovation that would lead to the discovery of new resources and thus an improvement of other dimensions such as life expectancy, housing, nutrition, and education levels in both the developed and the developing world (Cole et al, 1973; Anderson and Huggins, 2004). However, industrial expansion has also been identified at the root cause of environmental and social degradation and should therefore be restrained (Boulding, 1966; Meadows et al, 1972).

In the paper "*Economic growth—the essence of sustainable development*" (2004), Anderson and Huggins argue that "this gloom-and-doom theory has been resurrected under the guise of sustainable development, calling for changes in virtually every aspect of our consumption and production." The amorphous nature of the concept 'sustainability' (Campbell, 1994; Pretty, 1995) means that it is impossible to state the precise relationship between sustainable development and economic growth.

Regardless the viewpoint that one may agree with, evidence of Planet's degradation is mounting. Concerns for resources depletion go hand in hand with concerns about resource quality and general systemic changes of the natural systems' services. Our overconsumption and fixation for more and more growth is killing our planet (Leufstedt, 2010).

### **3. Sustainability: Opportunity or Risk?**

The business sector is responsible for a significant proportion of the environmental footprint, in addition to having a major influence on wider social and economic sustainability issues, both nationally and internationally (Robinson, 2009). Therefore, it is crucial to improve the environmental and sustainability performance of businesses and organizations in order to achieve a more sustainable society.

A sustainable business is any organization participating in ecological or green activities to ensure that all processes, products and production activities adequately address the current environmental concerns, while maintaining a profit (Rennie, 2008a). In other words, it is a business that "meets the needs of the present world without compromising the ability of future generations to meet their own needs" (United Nations General Assembly, 1987). Generally, a business is considered to be green if it meets the following four criteria (Cooney, 2009): (1) Incorporates sustainability in each of its business decisions; (2) Provides environmental products and services that replace the demand for products and / or organic services; (3) It is greener than traditional competition; (4) Made a commitment to the principles of environmental sustainability in its business operations.

The turn of the 'green' in business has been associated with a multitude of conceptions and practical ideas. Authors like Keijzers (2002), Rennie (2008a, 2008b), Galvao (2008), and Matthews (2009), attempted to define sustainable business or green business as business that not only curb pollution, ensure re-use of renewables and recyclable resources, and preserve natural resource stocks, but also respond to customer needs while at the same time leaving no negative impact on the environment, community, society and economy.

However, customers, financial partners, non-governmental organizations, governments, the globalization of economies and internationalization of social and environmental standards exert new pressures on companies to take on social and ecological responsibilities. Over the last decade, there has been an increased pressure on enterprises to broaden the focus of sustainability and accountability in business performance beyond that of financial performance. Demands for sustainability management spring from a variety of sources, including societal mandates incorporated into regulations, fear of loss of sales, and a potential decline in reputation if a firm does not have a tangible commitment to corporate sustainability management (Lee, 2005; Siegel, 2009). As a response, companies start to contribute to the development of sustainable energy and transport infrastructures, and in designing and implementing new sustainable technologies (Keijzers, 2002; Schmidt-Bleek, 1994).

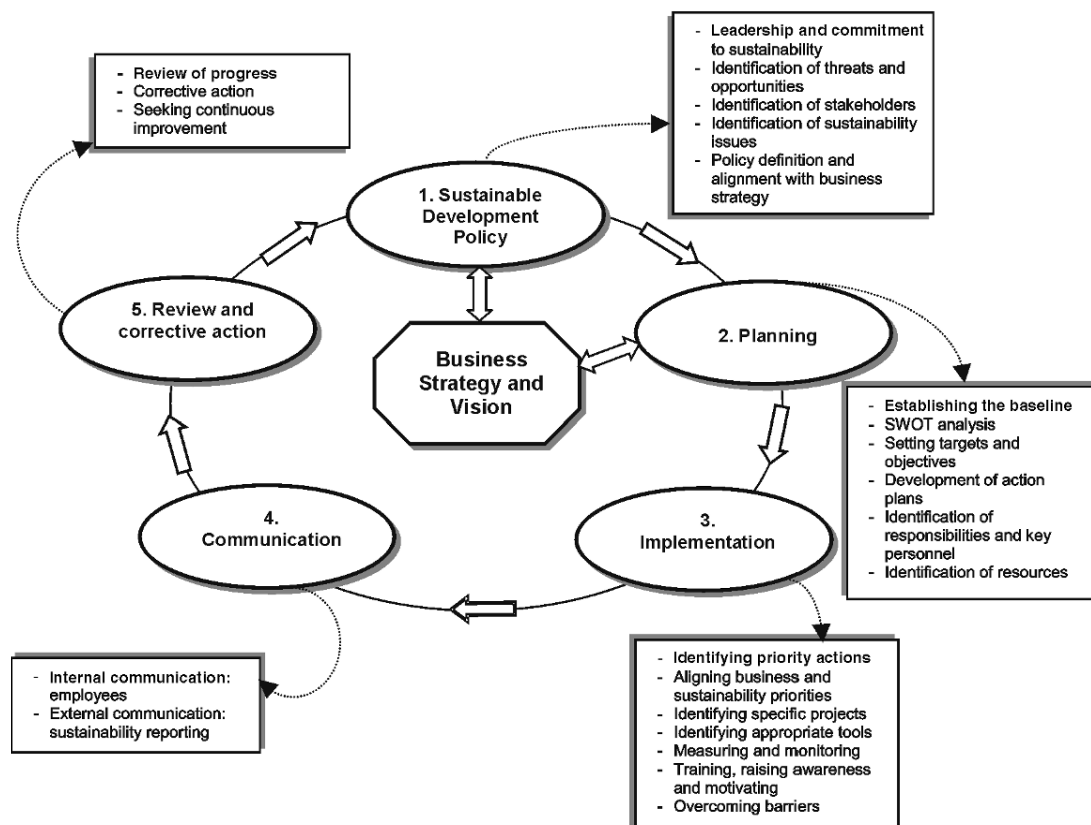
Although industry is sometimes seen as a source of environmental degradation and social concerns, it is widely recognized that it is an essential part of development and wealth creation. Therefore, as an important social actor, industry must play a prominent role in creating a sustainable future (Azapagic and Perdan, 2000). The challenge of sustainable development for any business is to ensure that it contributes to a better quality of life today without compromising the quality of life of future generations. If industry is to respond to this challenge, it needs to demonstrate a continuous improvement of its triple bottom line, i.e. economic, social, and environmental performance, within new and evolving governance systems (Azapagic, 2003).

Furthermore, environmental (e.g. climate change) and social (e.g. accountability) demands from shareholders and stakeholders are contributing to the pressure for companies to consider sustainability issues more seriously. However, the major challenge to companies and industries is to demonstrate their current contribution to the society as a whole without compromising the potential for continuing to deliver improvements or future generations. In short, sustainability management practices at a firm level may help the management board to align its corporate and business strategy and to meet key sustainability challenges (Schaltegger and Burritt, 2005).

#### 4. Corporate Sustainability Management System

Despite urgent calls for the adoption of corporate sustainability management practices (Figge et al, 2002; Lee, 2005; Siegel, 2009), its incorporation into corporate organizational management often remains more superficial than effective (Figge et al., 2002). Some of the reasons for this lack of integration are, according to Briassoulis (2001), both that companies do not know how to measure and address the issues in a systematic way, as well as the shortfall of available tools to support sustainability management practices in concrete and operational terms. However, there are international standards and guidelines for integrating sustainability management into business organizations. Increasing number of companies adopted sustainability management related standards and guidelines including ISO 14000, Social Accountability (SA) 8000, ISO 26000, AccountAbility 1000, OECD Multinational Enterprises, Dow Jones Sustainability Index (DJSI), and World Business Council for Sustainable Development (WBCSD) initiatives.

Azapagic (2003) proposed a general framework for the Corporate Sustainability Management System (CSMS), outlined in figure 1. As shown in the figure, „if a corporate sustainability strategy is to be successful, it must emerge from and be embedded into the business vision and strategy” (Azapagic, 2003:304). Corporate sustainability is not an ‘add-on’ as often assumed by some; rather, it should be viewed as an ‘umbrella’ tool which helps business identify and manage economic, environmental and social risks in an integrated way (Azapagic, 2003). For companies interested in long-term sustainable development, seeking to penetrate new markets and provide value-added solutions, an integrated approach to sustainability can unlock numerous opportunities to improve competitiveness and enhance reputation.



**Figure1:Corporate Sustainability Management System (CSMS).**

(Source: Azapagic, 2003:305)

Definition of a sustainable development policy is the first stage in setting up the CSMS. The policy should encapsulate the set of core business values agreed by the company and should contain statements of principles or policies on social, economic and environmental responsibilities and stakeholder relationships. However, before a sustainability policy can be formulated and put into practice, the following has to be carried out (Azapagic, 2003:305):

- “demonstration of leadership and commitment to sustainability;
- identification of threats and opportunities;
- identification of stakeholders; and
- identification of sustainability issues.”

Zoe Robinson (2009) observes that organizations are increasingly demanding sustainability literacy skills for a wide range of roles and responsibilities. If learners can gain these skills they are therefore improving both their own employability as well as their ability to contribute to making their future workplace and society more sustainable.

## **5. Sustainability in Romanian Companies**

Companies already know that their employees' sustainability literacy is important. Employees who have knowledge regarding sustainable development can help the business grow. In difficult economic times, sustainable development practices can save money and reduce environmental impact of the organization. To identify the approach to sustainability and to measure the importance given to education for sustainability in Romanian companies, a study was conducted using a questionnaire prepared by NEEF USA (2009). The questionnaire was translated into Romanian and adapted to the Romanian economic environment. Research results suggest that education for sustainability is becoming an increasingly common practice in many companies; however, there is still not a universally valid model - to suit all companies and industries.

### **5.1. Research Objectives**

The main objective of this research was to identify how sustainability is approached and to measure the importance given to education for sustainability in Romanian companies.

Secondary endpoints of the study were:

- Identification of awareness on sustainable development and sustainable practices;
- Identifying the best methods to educate employees on sustainability issues within a company
- Identifying the department most qualified to deal with issues of sustainability;
- Identifying obstacles encountered by employers in implementing a sustainable strategy.

### **5.2. Sampling**

The survey covered the entire population of Romania, which is why it was chosen an online method of data collection. Using the website [www.freeonline-surveys.com](http://www.freeonline-surveys.com) the questionnaire has been put online and distributed via e-mail, or through social networking websites and websites dedicated to partnerships between companies (eg [www.bizoo.ro](http://www.bizoo.ro)). Results are sent to the server in real time and can be viewed and analyzed. 807 valid questionnaires were collected, which means that for an indeterminate population there was a sampling error of  $\pm 3.45\%$  for a confidence level of 95%.

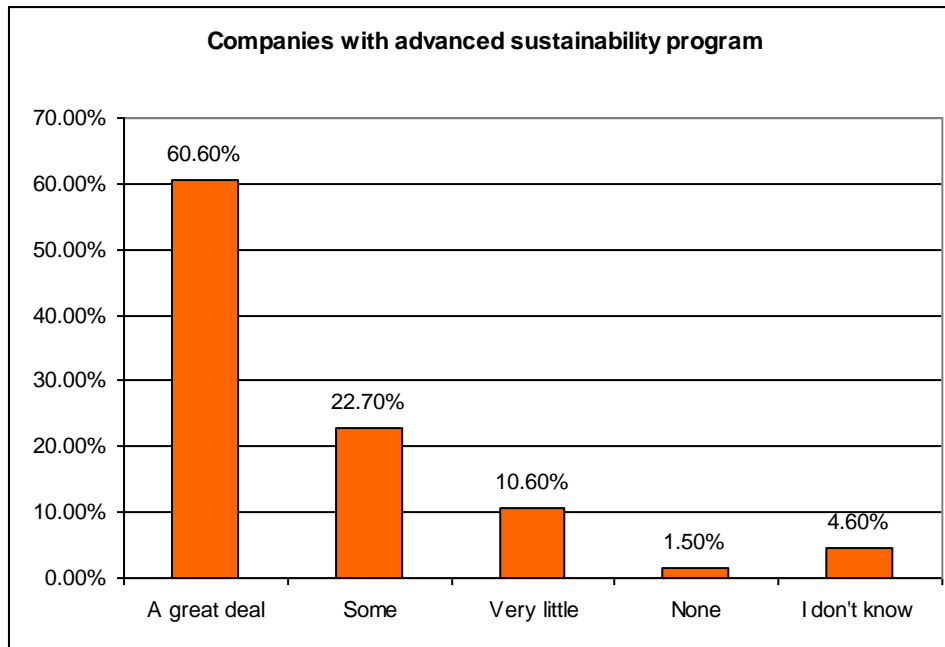
### **5.3. Research Results**

When asked what do they think of when they hear the term sustainability (sustainable development), some of the answers of the respondents were: "future generations", "evolution", "future ecology", "balance", "responsibility", etc. Most respondents were aware to some extent what sustainability is, but still, action is required to inform people about sustainability and its importance.

Out of the 807 respondents, only 342 said that their organizations have a program to educate employees on sustainable development, i.e. 42.85% of all respondents, while in the USA 75% of the companies have such training programs (NEEF, 2009). In terms of size of the organization, it appears that in small and medium sized enterprises is given the highest importance to education for sustainability.

Companies that have an advanced program for educating employees about sustainability / environment place a lot of value on the environmental/sustainability knowledge of the job candidates. As seen in figure 2, more than 83% of these companies think that sustainability knowledge of employees is important or somehow important. The importance given to this aspect decreases gradually with the intensity of training programs. Therefore, in companies without a training program, the chart is mirrored, with more than 57% of respondents indicating that their company gives very little or no importance to the sustainability knowledge of their employees.

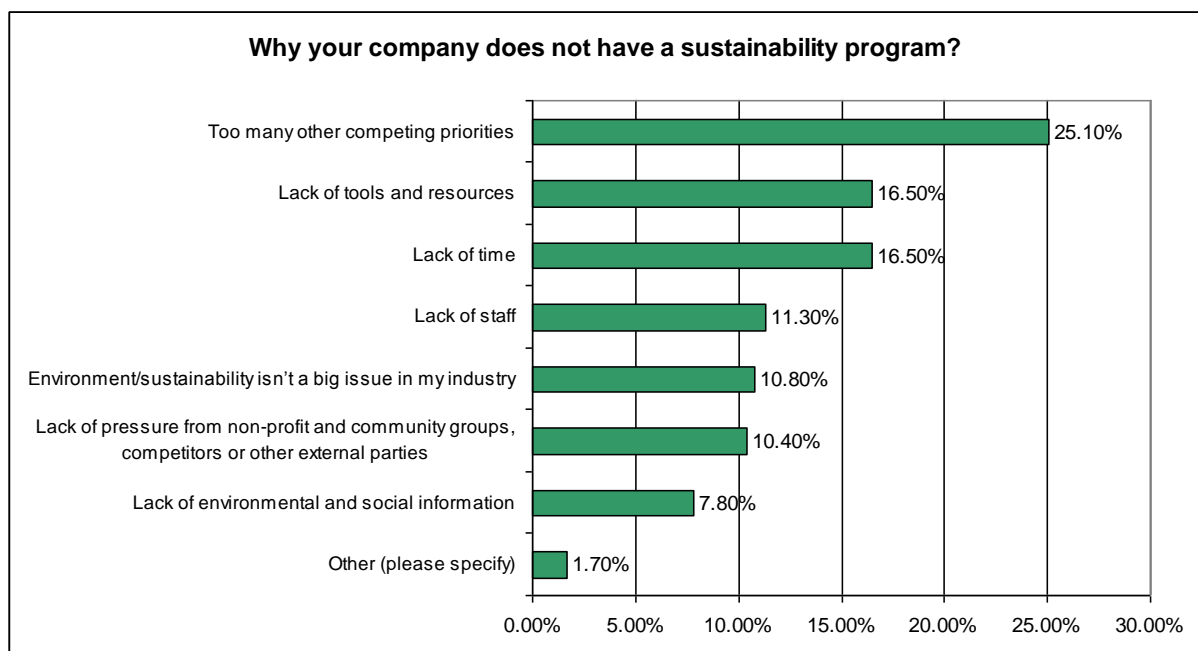




**Figure 2: The importance of sustainability knowledge of potential employees, prior to employment**

When asked if the company plans to start educating employees about environment / sustainability in the next two years, only 6% of respondents from companies without such a training program responded affirmatively. 20% said that the company doesn't plan to start such a program, and the rest don't know. Compared to USA, 49.4% of the companies plan to start such a training program in the next two years and 9.7% don't. The rest of 40.9% are not sure about the company's plans. It is noted that the percentage of firms with no employee training program is much lower in USA (25%) than in Romania (56.8%).

The reasons given by these firms for not having such a training program were 'lack of time', 'lack of such objectives' and 'priority of activities required to fight competitors', in America, and in Romania the biggest problems are raised by 'too many other priorities', 'lack of money', 'lack of time', 'disinterest for this problem', lack of education and trained persons to further educate other employees on the company (see fig. 3).



**Figure 3: The reasons of employers for not yet having such a program**

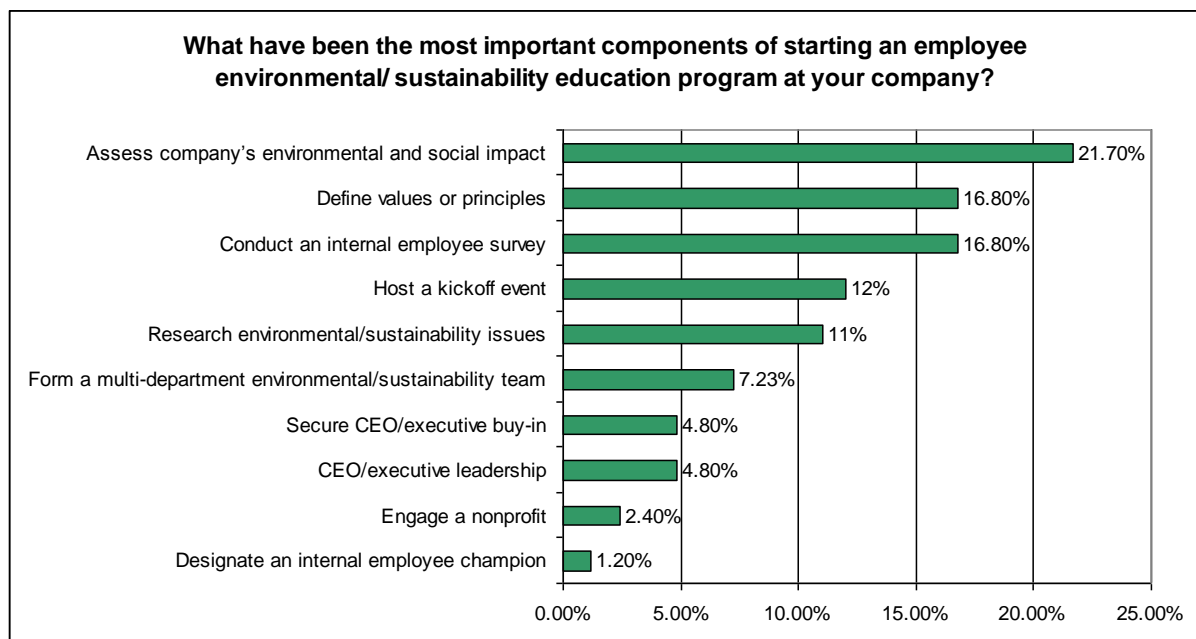
When asked what department would be responsible for educating employees on environmental / sustainability issues, most of the subjects responded that the departments of environmental protection (46%) and HR (24.8%) should be involved in this problem. This is confirmed by the answers of the people working in companies with advanced training programs. They also say that the departments responsible with environmental protection, human resource and quality assurance were most active in educating employees with regard to environmental / sustainability issues.

Question 31 seeks to identify which tools and resources would be useful for educating employees on environmental / sustainability issues. Being an open question, respondents could write anything. Most indicated that human and financial resources must be involved, but time is another important resource for the success of education employees.

Regarding instruments, the classic ones have been suggested by most respondents: training, workshops, role play to arouse the interest of all, posters, flyers, messages sent by e-mail, electronic watermark on the documents or sites, examples of best practices of other organizations. Notable is that although the question was an open one, more subjects identified the need for at least "a person with initiative, and several others with some openness and an interest in the environment in which they live and their children and grandchildren will live".

Employees of companies that have a program to educate staff on sustainability and the environment, responded that the most important motivating factors for employees to learn about the company's environmental/sustainability goals are the concern for the environment and society and job satisfaction, followed by the objectives of sustainability included in performance evaluation and the company's reputation and prize money that employees receive.

Question 23: "What were the three most important components for developing an educational program about the environment / sustainability in your company?" Most subjects (21.7%) responded that after the assessment of the company's impact on the environment and the society, the company decided to start such programs to educate employees. Other factors were internal questioning of employees (who suggested the initiation of such programs) and defining the values and principles. Factors least frequently encountered among the reasons for starting programs to educate employees are: designating an employee who is a champion on sustainability issues (1.2%), involvement of non-profit organizations (2.4%) or organizing committees of conference (4.8%) (See figure 4).



**Figure 4: Determinant factors in developing an educational program**

Regarding the efficiency of training, the most efficient methods are considered internal communication campaigns (27.6% of respondents) and volunteer programs in the community (26.7%). Award and recognition programs and competitions between departments or partnerships with non-profit organizations have also been assessed as effective methods of education. While in the U.S., the most effective methods are considered the online training modules, followed closely by competitions between departments and hiring consultants.

## 6. Discussion

The study aimed to find out to what extent education for sustainability is considered important by Romanian companies and the data showed that this is a matter which is being given increasing attention both by companies and individuals. People are motivated to learn about environmental and sustainability issues because they feel concerned about the environment and society. However job satisfaction and performance evaluation are also seen as good motivators. The low marks for customer loyalty in fact seem to suggest a minor concern for the wellbeing of the company alone (see the low marks for customer loyalty). Hence arguments for introducing sustainability measures to increase technological efficiency and the economic sustainability of the company might appear less motivating to employees if these are not connected to personal and social aspects.

When comparing the topics that are taught as part of the training courses introduced by companies, with what the employees desire to be taught, it is interesting to note a certain congruence of views. Namely, such courses should include general information about sustainability and knowledge of specific actions required at the workplace for conserving or protecting resources and the environmental regulations that the company has to comply with. This shows a level of pragmatism regarding sustainability, as people are less interested in success stories of other employees, or broader discussions on greening the supply chain or even generic sustainability attributes of the company's products and services. So it seems that the employees are action orientated and they would consider taking sustainability measures a part of their job.

### *6.1. Education for sustainability in Higher Education?*

Potential benefits for the implementation of Corporate Social Responsibility (CSR) and sustainability standards include lower prices for financial services, higher GDP growth and employment rate, equitable wealth distribution and long term sustainability in all areas of business (Cocris and Nichitean, 2010). Therefore, sustainability issues are relevant to organizations of all sizes and all sectors. Increasingly, organizations themselves are demanding sustainability literacy skills for a wide range of roles and responsibilities. If learners can gain these skills they are improving both their own employability as well as their ability to contribute to making their future workplace and society more sustainable (Robinson, 2009).

However, even if there is increasing concern towards this topic in Romanian companies, as shown by the results of this study, there are currently few examples of sustainability literacy being addressed across the curriculum in Romanian mainstream education (Grecu and Denes, 2011).

Zoe Robinson (2009) argues that in order to effectively contribute to driving environmental and sustainability improvements in their (future) workplaces, learners need to acquire knowledge, understanding, skills and experience in identifying opportunities for improvement and designing effective strategies for realizing them. They also need skills for presenting the proposed changes effectively and persuasively. Robinson (2009) goes further and highlights that besides the direct benefits of learners, gaining sustainability literacy skills has many wider institutional, societal and environmental benefits.

Growing concerns about sustainability raise the need for the involvement of citizens in an extended peer community (Benessia, 2009; Giumaraes Pereira, 2009). Accordingly, this widens the notion of 'expertise' from being a character of single individuals holding specialized knowledge, to that of being a competence, an ability, of a collective group of people to engage in the production of new knowledge, along with new discourses, models and images (Benessia, 2009). Yet, this implies a change in the traditional conceptions of science education and science literacy (Hodson, 1999). As stated in the Sapporo Sustainability Summit Declaration, "universities have a critical role to play in educating future generations, disseminating information about sustainability, and particularly by training leaders with the skills to solve regional and local problems from a global and interdisciplinary perspective" (G8 Summit, 2008).

Given that sustainability-related issues are increasingly evident and pressing, and that addressing sustainability in the real world often demands interdisciplinary approaches, it is safe to assume that Higher Education Institutions (HEIs) seeking to innovate a changing world will need to pay increasing attention to interdisciplinarity and sustainability and their interrelationship, and further, seek links with other agendas that may be driving the institution (Jones et al, 2010).

Given this, we suggest that the challenge of Sustainability Education in HEIs would be:

- To address the limitations of the organizational mindset and to include more personal aspects of sustainable behaviors;

- To introduce Education for Sustainable Development in Undergraduate courses and work in partnership with Industry;
- To contribute to steer the development process towards Sustainability and promote a collaborative culture within and outside the organization;
- To encourage a form of leadership that is open to dialogue with employees.

The type of ESD we envisage goes beyond simple training on the 'what & how' of sustainable development, but it aims at the development of broader civic capabilities of communication, self-expression & collaboration (Robinson, 2009). Further, HEIs need to focus on the nature of interdisciplinary programs arising from the University / Industry interface. In this view, sustainable education can become a vehicle of substantial changes in the practice and representation of civic spirit. Emancipation and empowerment can be associated with an environment of commitment, conviviality and creativity – making society, schools and living environments more hospitable and sustainable (Gray et al, 2009).

## 7. Conclusions

The objective of this study was to identify the approach to sustainability and to measure the importance given to education for sustainability in Romanian companies. Research has shown that in Romania, over 56% of organizations do not have education programs for the employees on the environment or sustainability issues while in the U.S., the percentage of organizations that do not have such programs is only 25%. This difference can be explained by the greater involvement of universities in this field.

The objective of an education on environmental sustainability for the employees is to help organizations to engage their employees directly, and enable them to address their actions towards the achievement of a superior performance in terms of sustainability. Thus, companies can produce innovative changes in the business process, reduce costs and their impact on the environment and society, or inspire employees to make sustainable decisions at home or in their communities. The starting point is the organizational culture of each company, and the employees' engagement to turn the organization's values and commitments on sustainability into reality.

There are programs for educating employees about sustainability, which are often launched with enthusiasm, but they are lacking structure and methodology to quantify cost savings and accountability to ensure success (NEEF, 2009). Such programs fail if they do not enjoy unconditional support from top management or do not receive feedback, interaction and participation from employees, customers or partners. This study aims to highlight the importance of education for sustainability - which if done in higher education institutions - can reduce training costs by companies, may facilitate synchronization of programs and sustainability efforts with business objectives.

Another argument for the necessity of education for sustainability is clear from the study done and is valid both in Romania and in America. When asked how do they anticipate that the value assigned to the candidates' knowledge of environmental / sustainability and their interest for these issues will change as a factor in employment over the next five years, 58.3% of respondents in Romania estimated that the importance of these knowledge will increase, while in America 78% of respondents predicted an increase in knowledge about the importance of sustainability.

Business is, directly or indirectly, the cause of most problems in the environment. It becomes increasingly evident that businesses are also those that should and can (both in terms of management and resources) address these issues. However, business community leaders ignore the studies about the ability to balance population growth, increasing consumption levels and threats to the natural environment. Education they have received in management school has indoctrinated them to prioritize increasing profits and shareholder value, not to recognize their actions as part of a finite, shared world. Recognition of the connection between environmental degradation and this dominant view of the purpose of schools reveals the deep need of a radically different vision of education. As David Orr (1992) notes, "The crisis cannot be solved by the same kind of education that helped create the problems".

Benefits of implementing environmental and social initiatives must be quantified and expressed in business terms as relevant benefits in the medium and long term, to induce managers to make sustainable development a priority. Universities must educate future leaders of corporations and their employees to convince them that the adoption of responsible business strategies in terms of sustainability is a "win-win-win proposal for companies, environment and the society" (Willard, 2004).

## 8. Acknowledgements

This research was conducted in the project POSDRU/88/1.5/S/60370 – “Integrating Romanian research in the context of European research – financed doctoral scholarships”.

## 9. References

- Anderson, T.L., Huggins, L.E. (2004), *Economic growth—the essence of sustainable development*, accessed at: [http://findarticles.com/p/articles/mi\\_m1568/is\\_8\\_35/ai\\_111574446/](http://findarticles.com/p/articles/mi_m1568/is_8_35/ai_111574446/) on 6.09.2011
- Azapagic, A. (2003), *Systems Approach to Corporate Sustainability: A General Management Framework*, Trans IChemE, Vol 81, pp303-316
- Azapagic, A. and Perdan, S., (2000), *Indicators of sustainable development for industry: a general framework*, Trans IChemE, Part B, Proc Safe EnvProt, volume 78, issue 4, pp243–261
- Benessia, A. (2009) *From Certainty to Complexity: Science and Technology in a Democratic Society*, Chapter 1, pp 10-26 in *Science, Society and Sustainability. Education and Empowerment for an Uncertain World*, edited by Donald Gray, Laura Colucci-Gray and Elena Camino
- Boulding, K.E. (1966) *The economics of the coming spaceship Earth*, in: *Environmental Quality in a Growing Economy*, John Hopkins Press.
- Briassoulis, H., (2001), *Sustainable development and its indicators through a (planner's) glass darkly*. *Journal of Environmental Planning and Management* 44 (3), 409–427
- Campbell, A. (1994), *Participatory inquiry: beyond research and extension in the sustainability era*, paper for International Symposium on Systems-Oriented Research on Agriculture and Rural Development, Montpellier, 1994.
- Cocris, V., Nichitean, A.L. (2010) *Corporate Social Responsibility in Romanian Commercial Banks*, Article provided by AlexandruIoanCuza University, Faculty of Economics and Business Administration in its journal *Analele Stiintifice ale Universitatii "Alexandru Ioan Cuza" din Iasi*, accessed at <http://anale.feaa.uaic.ro/anale/resurse/fin4cocris.pdf> on 09.09.2011
- Cole, H.S.D., Freeman, C., Jahoda, M. and Pavitt, K.L.R. (eds). (1973) *Thinking About the Future: a Critique of the Limits to Growth*, Chatto and Windus for Sussex University Press.
- Cole, M. A. (1999), *Limits to Growth, Sustainable Development and Environmental Kuznets Curves: an Examination of the Environmental Impact of Economic Development*, accessed at: <http://www.socscistaff.bham.ac.uk/cole/susdev.pdf> on 09.09.2011
- Cooney, S. (2009), *"Build A Green Small Business. Profitable ways to become an ecopreneur."*, McGraw-Hill Publishing House, New York
- Figge, F., Hahn, T., Schaltegger, S., Wagner, M., (2002), *The sustainability balanced scorecard—linking sustainability management to business strategy*. *Business Strategy and the Environment* 11, 269–284
- G8 Summit (2008) *Sapporo Sustainability Declaration*, available at: <http://g8u-summit.jp/english/ssd/index.html> accessed 09.07.2011
- Galvao, A. (2008), *"The Next Ten Years: Energy and Environment."*, Crossroads 2008 presentation, MIT TechTV beta, 55 min., 51 sec. available at <http://techtv.mit.edu/videos/107>
- Genesis Renewable Energy Inc., (2011), *ROI & Corporate Social Responsibility*, accessed at: <http://www.genesisre.com/roi-and-corporate-social-responsibility.html> on 07.09.2011
- Giumaraes Pereira, A. (2009), *Post-Normal Relationships between Science and Society: Implications for Public Engagement*, Chapter 2, pp 27-50 in *Science, Society and Sustainability. Education and Empowerment for an Uncertain World*, edited by Donald Gray, Laura Colucci-Gray and Elena Camino
- Gray, D., Colluci-Gray, L. and Camino, E. (2009), *Science, Society and Sustainability*. Education and Empowerment for an Uncertain World,
- Grecu, V., Deneş, C. (2011), *Study on Sustainable Development of Romanian Universities*, Proceedings of the 5th International Conference on Manufacturing Science and Education – MSE, Sibiu, 2011. ISSN 1843-2522, pag. 143-146
- Hodson, D. (1999), *Going beyond cultural pluralism: Science education for socio-political action*. *Science Education*, volume 83, issue 6, pp775-96
- International Institute for Sustainable Development (IISD), (2010), accessed at <http://www.iisd.org/business/> on 07.09.2011

- Jones, P., Selby, D. and Sterling, S. (2010), *More than the Sum of their Parts? Interdisciplinarity and Sustainability*, Chapter 2, pp 17-38, in *Sustainability Education*, edited by Paula Jones, David Selby and Stephen Sterling
- Keijzers, G. (2002), *The transition to the sustainable enterprise*, Journal of Cleaner Production Volume 10, Issue 4, August 2002, Pages 349-359
- Lee, K.H., (2005), *Corporate Sustainability and the Value of Corporations*. Pakyoungsa, Seoul
- Leufstedt, S. (2010), *A Picture is Worth... How our economy is killing the planet*, accessed at <http://www.green-blog.org/2010/08/09/a-picture-is-worth-how-our-economy-is-killing-the-planet/> on 09.09.2011
- Matthews, R. (2009), *What Constitutes a Green Business?* Accessed at: <http://globalwarmingisreal.com/2009/09/16/what-constitutes-a-green-business/> on 10.09.2011
- Meadows, D.H., Meadows, D.L., Randers, J. and Behrens, W.W. (1972) *The Limits to Growth: a Report for the Club of Rome's Project on the Predicament of Mankind*, Universe.
- Ministry of Environment and Sustainable Development (NSSDR) (2008) *National Strategy for Sustainable Development of Romania – Horizons: 2013-2020-2030*, Retrieved 05.02.2010 from: <http://strategia.ncsd.ro/docs/sndd-v5-r3.pdf>
- National Environmental Education Foundation, USA (NEEF) (2009), *The Engaged Organization - Corporate Employee Environmental Education Survey and Case Study Findings*, accessed at <http://www.neefusa.org/> on 10.09.2010
- NemoianuStocescu, D. (2008), *Private Equity in Emerging Europe*, accessed at: <http://rbd.doingbusiness.ro/ro/4/articole-recente/all/88/private-equity-in-emerging-europe> on 10.09.2011
- Orr, D. (1992). *Ecological literacy: Education and the transition to a postmodern world*. Albany, NY: SUNY
- Petry, R.A., et.al (2010) *Educating for sustainable production and consumption and sustainable livelihoods: learning from multi-stakeholder networks*, Sustainability Science, Volume: 6, Issue: 1, pp83-96
- Pretty, J.N. (1995), *Regenerating Agriculture*, Earthscan
- Rennie, E. (2008a), *Growing Green, Boosting the bottom line with sustainable business practices*, APICS Magazine. Vol. 18, no. 2
- Rennie, E. (2008b), *Painting a Green Story*, APICS Extra, Vol. 3, no. 2
- Robinson, Z., (2009) *Greening Business – The ability to drive environmental and sustainability improvements in the workplace*, Chapter 19, pp 130-136 in *The Handbook of Sustainability Literacy*, edited by Arran Stibbe
- Schaltegger, S. and Burritt, R., (2005), *Corporate sustainability*. In: Folmer, H., Tieten- berg, T. (Eds.), *The International Yearbook of Environmental and Resource Economics*. Edward Elgar, Cheltenham, pp. 185–232
- Schmidt-Bleek, F., (1994), *Factor Ten Club, Carnoules Declaration, Germany*, Wuppertal: Factor Ten Club
- Siegel, S., (2009), *Green management matters only if it yields more green: an economic/strategic perspective*. Academy of Management Perspectives volume 23, issue 3, pp5–16
- United Nations General Assembly (1987), *Report of the World Commission on Environment and Development: Our Common Future*, Transmitted to the General Assembly as an Annex to document A/42/427 - Development and International Co-operation: Environment. Accessed in: 2009-02-15 at: <http://www.un-documents.net/wced-ocf.htm>
- Willard, B. (2004), *Teaching sustainability in business schools*, Accessed la [www.greenleaf-publishing.com/content/pdfs/tbswillia.pdf](http://www.greenleaf-publishing.com/content/pdfs/tbswillia.pdf) in 20.05.2011
- [http://www.smarquest.ro/ro/resources\\_2.html](http://www.smarquest.ro/ro/resources_2.html)

# RISK MANAGEMENT STRATEGIES IN CRISIS CONDITIONS. A PROFILE OF ORGANIZATIONAL RESILIENCE

**GRIGORESCU Adriana**

*Ph.D., Professor, Faculty of Public Administration,  
National School of Political Studies and Public Administration, Bucharest, Institute for Economic Forecasting  
Bucharest, University Valahia from Targoviste Romania,  
[adrianagrigorescu11@gmail.com](mailto:adrianagrigorescu11@gmail.com)*

**ODAGIU Cristian**

*Ph.D. student, Faculty of Economic Sciences, „Valahia” University, Târgoviște, Romania,  
[cristian\\_odagiu@yahoo.com](mailto:cristian_odagiu@yahoo.com)*

**Abstract:** *The proportion of managers who build a really efficient risk management process is very low. The study of crisis management is primarily designed as an analysis of management methods for channeling the events out of standards. The crisis is a process: the procedural of the crisis management theory illuminates the mechanisms of production of these exceptional events, their nature and the potential of organizational reconfiguration that they have. A finer understanding of the crisis must explore the mystery of the origin of the events and the possible futures after the events to develop the organisations capacity for resilience.*

**Key words:** global crisis, risk management, ERM, organizational resilience, disturbances

**JEL Classification:** D81, G32, H12, M14

## Introduction

In recent years, various types of crises caused by failures of complex socio-technical systems were observed:

the global financial crisis, the climate change, crises related to poverty or organizational crises of some big companies. In addition to natural disasters, these events have completely exceeded the organizational system in place, underlying the importance of risk management (Shrivastava, Statler, 2010).

After the outbreak of the crisis in September 2008, several Member States of the EU have had urgently, take measures for the protection of their national banking system. To define a common response to the economic downturn, formal and informal consultations between EU member countries took place to restore the confidence in the financial markets (EC, 2009). The European Council stressed the need to implement innovation strategy and emphasized the central role of innovation in the ability of Europe to effectively meet the challenges of the global economy and the opportunities.

Taking into account the situation created, the relationship between the crisis and the modernization of administrations consists of the implementation of public services less expensive and easier to access and the establishment of institutions more transparent, more efficient and better organized.

## 1. Managerial crisis implications

The definition of Pearson and Clear since 1998 provides a good illustration on crises: “An organizational crisis is a slightly probable event, whose impact threatens the viability of the organization and is characterized by the ambiguity of its causes, consequences and means of resolution as well as the belief that decisions must be taken quickly” (Roux-Dufort, 2010, p. 2). The nature non-scheduled, non-structured, unplanned and unexpected of the crises imposes that the priority of managers is to restore quickly a balance before that other imbalances do switch the situation in a deep rut. The definition of crisis management by most of the authors clearly attest to this concern: “Crisis management is effective when the activity is continued or resumed, that damages concerning the external stakeholders are reduced and when learning allows to transfer the lessons of the crisis to better deal with future incidents” (Roux-Dufort, 2010, p. 2).

The effect of the crisis is the appearance of a fault line and a hinge between degenerative organizational past and a future bearer of changes. Thus, the crisis processual theory relies on the idea that crises are the result of the combination of two complementary cumulative processes: organisational defects and ignorance management.

In the case of the organizational defects which represent a gradual build-up of fragilities, there are four manifestations of the imperfections as they accumulate and contain various levels of visibility from the point of view of managers: anomalies, vulnerabilities, failures and crises.



Ignorance management is defined as a form of inability to take into account the cumulative effect of the organizational defects previously described. For each stage of imperfection, managerial ignorance manifests itself in a specific manner as the weaknesses are visible or not, or is approaching the breaking point as can be seen in the table below:

**Table 1: The correlation between organizational defects and the four dominant types of mechanisms of ignorance**

<b>Organizational defects</b>	<b>Ignorance management</b>
Anomalies	The inattention
Vulnerabilities	The allocation
Failures	The denial of reality
Crises	The closure

Source: Roux-Dufort, 2010

### 1.1. The risk management

The persistence of global crisis produces a multiplication of the risks which implies adequate managerial approaches. According to the crisis processual, strategies for monitoring and control of risks shall include the identification of their magnitude and the elaboration of a strategy to identify the continuous emergence of new categories of risks. Full planning of the risk strategy and its inclusion in the overall business strategy are the key factors of it (Petrescu, Stegăroiu, Năbărjoiu, Duică, Popa, 2010).

The risks, i.e. the sum of probabilities and consequences of an event, most often correspond to dangers, but they may also be charged as new opportunities that may affect the achievement of the strategic, operational and financial objectives. The “appetite” for risk, which is the highest level of risk deemed acceptable by managers, the perception and risk tolerance are the factors which influence the organizational culture and management. The steps taken in the framework of the risk management strategy are: the identification, the description, the estimation, the evaluation, the treatment and the information management on risks (Collier, 2009).

It can be seen, especially in the current conditions of global economic crisis, a crisis in the field of risk management. There are three main reasons of the crisis of risk management, in accordance with the table below:

**Table 2: The failures of risk management systems**

<b>Failure</b>	<b>Attitudes of the manager</b>
<b>Lack of measuring risks</b>	arguments that a given field is too specific or that there is too little data to conduct a quantitative study of the risks
<b>The level of risk is systematically undervalued due to multiple bias</b>	although devices for measuring risks exist, managers tend to underestimate the level of risk, particularly because they rely on their memory past events and not a proven measurement and monitoring system
<b>The absence of using the elements whose effectiveness has been proven scientifically</b>	ignoring the use of all specific elements yet known to be effective

Source: Hubbard, 2009

With regard to the organisational dimensions of risk management, there is a view widely shared that private companies are best placed to take themselves risk reduction measures. In the context of the financial crisis, it is also recommended to systematize the exchange of experiences between different sectors of activity. The advent of a real governance of risks will happen only with the multiplication of exchanges between the State, the civil society and the market. Thus, these exchanges will help the quantitative techniques to reduce the risks, to become more democratic, which cannot be done without upgrading the role and regulation capabilities of public services.

### 1.2. Changes required for public services

In these hard economic times, it is necessary a set of phases of production of public services and new tools to allow public administration to transform. This period of profound change, characterized by reductions in numbers and budgets will place huge pressures on the service to be more effective and efficient within available resources. Leadership is more important than ever to find the required new ways of working. In this respect, Kotter’s argument since 1996 that the key to a successful organization is



"leadership, leadership and still more leadership" (Brillantes, Fernandez, 2011, p. 69) has constantly validity.

To secure the efficient and effective provision of public services in changed circumstances, in the table below are shown the more important five necessary challenges:

**Table 3: The main challenges facing the public service in the coming years**

<b>Challenges</b>	<b>The main questions</b>
<b>The challenge of designing a productive public service</b>	What is the appropriate size of an efficient and effective public service? How can barriers to shared services be overcome? How can local government more effectively coordinate and deliver local services? What performance and evaluation structures, processes and information are needed to enhance value for money? How can effective accountability of regulators be secured? How can the effective enforcement of regulation be improved?
<b>The challenge of renewing public service capacity</b>	How can leadership of the public service be further developed to secure desired change? How can adaptive leadership practices be more widely developed across the public service? What range of specialist skills is needed and how are these skills best incorporated in the public service? How can organizational capacity and system-wide capacity needs best be assessed? How can workforce planning help secure the best use of resources? How can public servants best be motivated and incentivized to provide excellent service? How will openness, mobility and external recruitment impact on capacity?
<b>The challenge of implementation</b>	What configuration of capacity is needed at the centre of government to oversee and drive change? How can senior managers create the cultural conditions to encourage staff to engage with change and develop leadership at all levels? What steps are needed to ensure active engagement of front line staff in the change process?
<b>The challenge of engaging the citizens</b>	What are the best means of involving citizens more actively in the strategic planning and policy design of public services? How can performance and financial data be more effectively opened up to the public for public use? In what circumstances are user driven services and personalized budgets most appropriate?
<b>The challenge of securing effective political accountability</b>	How should the roles and responsibilities of ministers, civil servants, programme managers and advisers be delineated and defined? What are the most appropriate roles and functions of management advisory committees? What performance information is needed for budgeting?

Source: Boyle, MacCarthaigh, 2011

### 1.3. Enterprise Risk Management

In 2004, COSO (Committee of Sponsoring Organisations of the Treadway Commission) defined Enterprise Risk Management (ERM) as "a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives" (OECD, 2009, p. 27).

The three dimensions ERM can be visualized are: the objectives, the totality of the enterprise and the framework. While the objectives are defined as strategic operations applied at the enterprise level, division, business unit and subsidiary level, the ERM framework comprises eight components as shown in the table below:

**Table 4: The components of the ERM framework**

<b>Component</b>	<b>Attitudes of the manager</b>
<b>Internal environment</b>	it encompasses the tone of an organization, and sets the basis for how risk is viewed and addressed by an entity's people
<b>Objective setting</b>	objectives must exist before management can identify potential events affecting their achievement
<b>Event identification</b>	internal and external events affecting achievement of an entity's objectives must be identified, distinguishing between risks and opportunities
<b>Risk assessment</b>	risks are analysed, considering likelihood and impact, as a basis for determining how they should be managed
<b>Risk response</b>	management selects risk responses developing a set of actions to align risks with the entity's risk tolerances and its risk appetite
<b>Control activities</b>	policies and procedures are established and implemented to help ensure the risk responses are effectively carried out
<b>Information and communication</b>	relevant information is identified, captured, and communicated throughout the organization in a form and timeframe that enable people to carry out their responsibilities
<b>Monitoring</b>	the entirety of enterprise risk management is monitored and modifications made as necessary

Source: OECD, 2009

To help answering to the issue about the developing of intelligent responses to risk by the organization, there are five key dimensions to consider, as shown in the table below:

**Table 5: Key factors of the organisation to develop intelligent responses to risks**

<b>Factor</b>	<b>Meaning</b>
<b>Strategy</b>	to prevent a risk from happening or allow it to happen and deal with the consequences
<b>People</b>	the risk to be managed by specific individuals, or it is something that needs to be managed throughout the organisation
<b>Detail</b>	to manage general risks or specific risks
<b>Tasks</b>	the activities of gathering information, devising plans, procedures or approaches to managing the risk and then the actions including implementing the plans and looking for assurance that the proposed action has been taken
<b>Drivers</b>	the need for someone or something to make sure that the whole process takes place: these drivers include managers in the organisation, outside regulators or the culture of the organization

Source: OECD, 2009

Each part of this model was designed to support three key corporate objectives: the continuity of the business, timely and accurate financial reporting and compliance with local laws and regulations (OECD, 2009).

## 2. Organizational resilience

In managing risk, crises, and emergencies, organizational resilience is a topic of great interest. The analysis of the strategies of resilience and organizational reliability allows to understand the growing issues of vulnerability and dependence and they are more likely to be effective than strategies only aimed at the protection of critical infrastructure. They require substantial changes on the part of the systems and organizations to feel, to learn and to act before, during and after the crises (Therrien, 2010).

Pinel developed in 2009 the definition of organizational resilience which encompasses all of the visions and brings together the work around this concept adopted as: "the ability of a system to maintain or

restore an acceptable level of operation despite disturbances or failures” (Robert, Hémond, Yan, 2010, p. 133).

As an emerging systems property, organizational resilience is regarded as the ability of a system to absorb stresses from outside or as the result of a system that prevents the harmful consequences, which minimizes and which recovers quickly. Since 2005, Lengnick-Hall et Beck defined organizational resilience as a unique blend of cognitive, behavioural and contextual properties increasing the ability of an organization to understand its current situation and develop custom responses that reflect this understanding (Therrien, 2010).

The table below shows three major types of organizational resilience:

**Table 6: Types of organizational resilience**

Type of resilience	Feature
<b>cognitive</b>	interprets the uncertain situations with more creativity
<b>behavioural</b>	can better develop familiar and non-conventional activities
<b>contextual</b>	take advantage of the relationships and resources

Source: Therrien, 2010

The four axes described by Madni and Jackson since 2009 for the organizational resilience provide to avoid disturbances (anticipation), to withstand disturbances, to adapt and to recover. This involves the knowledge of the environment, the level of preparation, the anticipation of disturbances, the ability of deployment of resources, the degree of adaptation, the ability of recovery etc. (Robert, Hémond, Yan, 2010).

A model of representation of the organization makes possible the maintenance of the complexity through modeling as ontological description of the organization, which allows to specify the issue of identity or that of the meaning. Thus, as a measure of intra-organizational resilience need to be done an analysis to the hyperspace of the danger which is composed of five spaces (see Table 7).

**Table 7: The hyperspace of the danger**

Space	Components
<b>purposive</b>	all of the objectives of the organization
<b>axiological</b>	value systems
<b>ethical</b>	organizational rules
<b>memory</b>	statistics, data banks, information that constitutes the memory of the organization
<b>epistemic</b>	banks of knowledge giving modelling used by the organization

Source: Therrien, 2010

While the importance of purposive space lies in the fundamental knowledge of common goals as well as his deep sense, the axiological space has two key features: organizational culture and social cohesion (Table 8).

**Table 8: The features of the axiological space**

Feature	Indicator	Meaning
organizational culture	mutual trust between employees	accepting new ideas, the ability for innovation and creativity
	ability of self-criticism	wisdom, without excessive caution or tendency to doubt
social cohesion	solidarity between colleagues	connective capacity
	sensitivity of the contribution of the organization to the society	provides a clear direction with respect to the organizational choices

Source: Therrien, 2010

## 2.1. Characterization of disturbances

The approach system of the organization (the inputs, the functional units, the outputs) can be used to know the environment in which the organization operates and the disturbances and failures that it may

encounter. The system (organization) state of reference is defined as the state for which the system was designed, that means to deliver products (outputs) that meet specific features in its design and implementation. System states correspond to the existing conditions for the output and each state of the output and the system must lead to a method of appropriate management as can be seen in Table 9:

**Table 9: Management modes depending on the status of the organizational system**

<b>Output state</b>	<b>Meaning</b>	<b>Organization state</b>	<b>Meaning</b>	<b>Management mode</b>	<b>Meaning</b>
<b>Normal</b>	the output is provided in a correct way to its users respecting the time and quality characteristics	<b>Reference</b>	theoretical status of the organization for which it was designed and a level of optimization to which the system seeks to extend	<b>Common management</b>	the implementation of preventive measures to manage the daily small disturbances and to anticipate potential failures
		<b>Normal</b>  <b>Performance threshold</b>	the organization is powerful because it properly fulfils its mission for the supply of all the outputs which are in their normal state		
<b>Disturbed</b>	the output is delivered to its users with features time-quality degraded, but acceptable	<b>Disturbed</b>         <b>Failure threshold</b>	one of the outputs is disturbed, but thanks to the implementation of actions, the organization manages to keep acceptable output delivery time or to limit the deterioration of quality, so the system continues to fulfil its mission, but it is no longer efficient	<b>Special management</b>	the implementation of corrective actions to maintain the supply of the output according to acceptable features or trying to go up to a normal operating state
<b>Degraded</b>	the output is provided to its users with degraded and unacceptable time-quality characteristics, or is simply not provided	<b>Failed</b>	despite the actions, the deterioration of the output become unacceptable and make it unusable, meaning the termination of the ability of the system to perform its missions	<b>Emergency management</b>	the deployment of emergency measures to try to return the organization to an acceptable operating condition where rules planned can be applied
		<b>Out of service</b>	complete cessation of any activity		

Source : Robert, Hémond, Yan, 2010

The current management provides the maintenance of the activities and the anticipation of potential failures, so it is a planned management, while the special management provides the maintenance of activities and recovery to a normal operating state, therefore being a planned and adaptive management and, finally, the emergency management is more rigid and procedural.

It is essential for the manager to determine the thresholds that will promote the anticipation of state changes which are also useful in the establishment of the indicators that ultimately will be used to assess the state of the organization resilience. As seen in the Table 9, performance threshold corresponds to the

boundary between the normal state of the system (correct provision of the output) and a disturbed state (disruptions in the supply of output) and the failure threshold corresponds to the border between a disturbed state of the system (acceptable disturbances) and a failed state of the system (unacceptable disturbances). It should be clarified that management modes and organizational states are not fixed in time, but evolutionary, with the goal of balancing the system between hazards and consequences.

The assessment of the state of resilience which is very useful in order to help managers to intervene effectively so that they can ensure that their system is in a normal state must rely on the indicators that will constantly measure the trio "accept, anticipate and plan" (see Table 10), while taking into account all of the functioning of the organization. It is therefore crucial to integrate this tool of decision-making for organizations which is the resilience into the culture, as long as the transition from theory to practice is difficult. The continuous evaluation of the consistency between all the elements relating to knowledge, to the anticipation mechanisms and planning the system rules as well as its consistency with its environment are the cement that binds the three concepts.

**Table 10: The concepts for making an organization more resilient**

Concept	Significance
accept	to be able to understand the environment in which the system evolves, to characterize the organization by setting a reference state and to know the failures and to accept them
anticipate	to be able to be proactive by reporting to the failures that may occur and to provide delays to identify the margins of maneuver
plan	to be able to organise in advance actions of prevention and correction thanks to the resiliency management modes and to take into account the dependence on other resources and services

Source : Robert, Hémond, Yan, 2010

## 2.2. The aesthetic management

Practical knowledge involves academic knowledge but, also, it involves physical and emotional experience. Human emotions and their influences on the organizational performance and resiliency are more and more important. Following the recent crises, managerial practices, embodied by the cultural and historical human experience, were witness to a growing call to a critical thinking on assumptions and values of governance, ethics, social responsibility, sustainability of organizations and economic systems:

**Table 11: The relevance of aesthetics in managerial decision making**

<b>Aesthetic management approach</b>	expand the sensory perceptions
	exercise a judgment based on a holistic and embodied understanding of the systems
	reflect on these perceptions and these judgments with colleagues to get socially responsible and sustainable results
<b>Skills and aesthetic abilities of the manager</b>	sharp sensory perceptions (sight, hearing, touch, taste and smell)
	acuity and depth of awareness of itself and its environment
	synthesis of various data
	empathy and the ability to communicate with others
	emotional stability and flexibility
	awareness of the physical and social environment
	the ability to calm and reflection
	the meaning of the good behavior to adopt, of its position and cultural and social appropriateness
	the control of his emotional state and the ability to self-regulation

Source: Shrivastava, Statler, 2010

## 3. Conclusions

The current situation, characterized by the ongoing global economic crisis, requires an emergency management mode that corresponds to the failed state of the system which is more reactive than adaptive. The increasing complexity of the organizations, combined to new disturbances, requires to the EU to review the functioning of the organizations. A new vision is required to understand the causes, the implications and the solutions as well as shaping the new coordinates and changes in management approaches. Whereas there is no single model to achieve change, managers can achieve to manage it through „a large variety of ways ranging from an extreme to another, from the pure and simple coercion to the more subtle seduction and the introduction of new technical instruments” (Schein, 1991, p. 195).

Strategic leadership needs to lead the reforms necessary to change the organizational behavior and practice to create the premises for future organizational changes. These things require that at the head of the organization to be a leader with great skills, having a great experience to solve complex multi-disciplinary problems and to design links and interactions between policymaking and their implementation. At the same time, it is important to confirm that there is a need for a structured balance between the field of experience and the development of specialized skills within the group of management (Schmidtchen et al., 2010, p. XXI).

The necessity of implementing a professional management in our country arise from the superimposition of the three particularly complex transitions: the transition from command economy to a market economy, which has not yet ended, the total constructive and functional integration in the European Single Market and the transition from the current economy, existing in Romania, to the knowledge-based economy, which is the economy of the future. The essential characteristics of the managers based on knowledge, known in the last decade as "T" managers are shown below:

**Table 12: The essential characteristics of "T" managers**

<b>Major components of the activity</b>	<b>Significance</b>
<b>The horizontal component</b> (the top of the "T")	carried out voluntarily, without constraints, on the basis of willingness to discuss and analyze problems with other managers and specialists
<b>The vertical component</b> ("T-stem")	hierarchical reports carried out in both directions

Source: Nicolescu, Verboncu, Profiroiu, 2011

Typically, the vertical component is prominent throughout the time budget of the "T" manager but, as the organization moves forward toward the stage of knowledge-based firm, the trend of decrease of its share is becoming more evident.

In the context of a professional management, with the initiation of integrating actions that have led to the creation of the European Single Market and to continue the process of enlargement of the European Union, the concept of euromanagement has been noted.

Whereas the vast cultural diversity does not allow the EU to apply a certain prototype of management, the possible application of a diversity management will provide an european identity for euromanagers and for the exercise of managerial functions in the context of a future United Europe.

Cultural diversity, economic, political and social, the design, development and implementation of strategies at the level of companies that exceed the boundaries of a country, the creation of an european company identity, based on specific economic and social values, the mobility of human resources are some of the characteristics of the euromanagement as a diversity management (Petrescu, Stegăroiu, Năbărjoiu, Duică, Popa, 2010).

The introducing of the main challenges facing the public service in the coming years (see Table 3) could be a useful source of information which will contribute to both the process of national recovery and the improvement of our public administration. Other questions related to these major changes in the administration of the public service will undoubtedly arise during the coming months and years, which requires an even greater managerial flexibility.

A summary of the observations and recommendations made by the OECD in 2009 (which are still highly topical) for private sector risk management under the conditions of the global economic crisis that persists in the present is shown in the following table:

**Table 13: Key findings to financial crisis and main messages of the OECD**

<b>Key findings</b>	effective risk management is a key element of good corporate governance in financial and nonfinancial companies
	risk management failures in financial companies can have important implications for systemic risk
	failures in non-financial companies can also involve major externalities and social costs
	risk management is integral to corporate strategy, orientation which is much too ex-post
<b>Main messages</b>	the financial crisis shows that risk management needs to be an enterprise-wide undertaking and not just practiced in particular product/market lines
	the board bears primary responsibility for strategy and for associated risk management
	good risk management must be practiced throughout the organisation and be a part of the way it does business
	boards must monitor the structure of the company and its culture and also ensure a reliable and relevant flow of information (the assurance perspective) to the board about the implementation of its strategy and the associated risks
	particularly in financial institutions, a separate channel of risk reporting to the board such as via a chief risk officer is warranted in the same way as internal audit reports separately to the audit committee and not just to the CEO
	reflecting the lack of adequate standards, disclosure of foreseeable risks is often poor and can be mechanical and boiler plate in nature (e.g. a list of umpteen possible risks)
	more important is adequate disclosure about the mechanisms of risk management and the risk management culture
	remuneration and incentive systems have important implications for risk taking and therefore
	need to be monitored and perhaps even influenced by the risk management system

Source: OECD 2009

It is well known that private companies are best placed to take themselves and voluntarily measures of risk reduction; therefore there is a need of the recommendation to systematize the exchange of experiences between different sectors of activity.

An important role has organizational resilience whose key factor is the ability of the organization to allow to the organizational relationships persist during the crisis. Resilience engineering will provide instruments to improve the functioning of organizations, but also to ensure the best operation in a period of disruption and reduce the time for a return to normal.

In the same idea, the aesthetic management plays an important role because in the particular context of crisis management, the aesthetic virtues such as the meaning of perception and judgment ability may play a major role when decisions must be taken from a limited number of information in response to a constant changing environment.

Crisis are periods in which emotional stress is especially high in the organizations, therefore the manager must be focused on four stakes to obtain performance and to make an adjustment to these restrictive conditions, as shown in the table below:

**Table 14: Strategic change: four types of critical issues**

<b>Behavioral type</b>	<b>Ability</b>	<b>Action, meaning</b>
<b>Rational</b>	capacity to improve	to edify a more performant system
<b>Political</b>	capacity to collaborate	to co-opt various partners
<b>Human</b>	capacity to contribute	to mobilize the people involved
<b>Symbolic</b>	capacity to identify himself	to make a sense of changes

Source: Jacob, Rondeau, Normandin, 2008

The new coordinates and changes in management must take into account that those who have mastered the aesthetic dimensions of an experience are no doubt better armed to act effectively in condition of crisis and uncertainty. The awareness of the aesthetic dimensions of experience can help to increase the human and organizational capacities beyond what they are usually, contributing to the resilience of systems in times of extreme stress (Shrivastava, Statler, 2010).

**Acknowledgement:** This article is developed in the project “Doctoral Preparation of Excellence for the Knowledge Society-PREDEX”, co-financed by EUROPEAN SOCIAL FUND: Sectoral Operational Programme Human Resources Development 2007-2013. No. contract identification: POSDRU/CPP107/DMI1.5/S/77497

#### 4. References

- Boyle, R., Mac Carthaigh, M. (2011) Fit for Purpose? Challenges for Irish Public Administration and Priorities for Public Service Reform, Institute of Public Administration, Dublin, *Research Paper N°4*.
- Brillantes, A. B. Jr., Fernandez, M. T. (2011) Restoring Trust and Building Integrity in Government: Issues and Concerns in the Philippines and Areas for Reform, *International Public Management Review*, Vol. 12, No. 2, St. Gallen, p.55-70.
- Collier, P. M. (2009) *Fundamentals of Risk Management for Accountants and Managers: Tools and Techniques*, Butterworth-Heinemann, Oxford.
- European Commission (2009) General Report on the Activities of the European Union-2008, Bruxelles.
- Hubbard, D. W. (2009) *The Failure of Risk Management: Why It's Broken and How to Fix It*, John Wiley and Sons Inc, Hoboken.
- Jacob, R., Rondeau, A., Normandin, F. (2008) La gestion du changement stratégique dans les organisations des secteurs public et parapublic: le point de vue des praticiens, *Télescope*, Vol. 14, no. 3, Québec, p. 107-113
- OECD (2009) Corporate Governance and the Financial Crisis. Key Findings and Main Messages, *OECD Conference Centre Paris*.
- Petrescu, M., Stegăroiu, I., Năbărjoiu, N., Duică, A., Popa, E. (2010) *Change management and risk*, Bibliotheca Publishing, Târgoviște.
- Robert, B., Hémond, Y., Yan, G. (2010) L'évaluation de la résilience organisationnelle, *Télescope*, vol. 16, n° 2, Québec, p. 131-153.
- Roux-Dufort, C. (2010) La vulnérabilité organisationnelle à la loupe : entre fragilité et ignorance, *Télescope*, vol. 16, n° 2, Québec, p. 1-21.
- Schein, E. H. (1991) Plaidoyer pour une conscience renouvelée de ce qu'est la culture organisationnelle, in Tessier, R. & Tellier, Y. (coordinators), *Pouvoirs et cultures organisationnelles*, Presses de l'Université du Québec, p. 175-196.
- Schmidtchen, D. et al (2010) State of the Service Report 2009-2010, *Australian Public Service Commission*, Canberra.
- Shrivastava, P., Statler, M. (2010) L'esthétique des systèmes résilients, *Télescope*, vol. 16, n° 2, Québec, p. 115-130.
- Therrien, M.-C. (2010) Stratégies de résilience et infrastructures essentielles, *Télescope*, vol. 16, n° 2, Québec, p. 154-171.



# NATIONAL COMPETITIVENESS – SCENARIOS FOR ROMANIA

**HERCIU Mihaela**

*Associate Professor, Ph.D, Lucian Blaga University of Sibiu*  
[mihaela.herciu@ulbsibiu.ro](mailto:mihaela.herciu@ulbsibiu.ro)

**Abstract:** *Competitiveness remains a continuous concern of nations in any stage of development, from factor based economy to innovation based economy. The present paper aims to emphasize the current level of national competitiveness of Romania, on one hand, and to identify possible ways to improve the current level by building scenarios in order to eliminate the uncertainty, on the other hand. The paper proposes four scenarios for increase GCI (growth competitiveness index) and four scenarios from pessimistic point of view (in these scenarios GCI will be decrease). In the near future, Romania must improve their pillars of national competitiveness and must increase their GDP per capita for transition process to stage three of development.*

**Key words:** national competitiveness, pillars, stage of development, scenarios, Romania

**Jel Classificatin:** O10, O40

## 1. Literature review

The issue of national competitiveness is a matter of considerable important to both managers and public policy makers alike (Thompson 2004). In his opinion the notion of national competitiveness is “controversial and has both (1) a narrow, concise conception that relates primarily to cost conditions as determined by exchange rate, and (2) a broader, more nebulous conception that comprises the institutional and systemic circumstances of an economy, such as legal, governmental, public policy and other factors framing countries’ wider business environments”.

Aiginger (2006), Kao (2008) and Onsel (2008) define competitiveness as the ability to create welfare, the relative ability of a nation to create and maintain an environment in which enterprises can compete so that the level of prosperity can be improved and suggest also that each comprehensive assessment of competitiveness should contain an outcome evaluation and a process evaluation, on one hand, and must be compared to other nations of similar economic development, on the other hand.

In this context, the aim of macroeconomic policy is very important in order to achieve simultaneous internal and external balance in the short run and of as rapid growths of living standard as possible in the long run (Boltho 1996).

Competitiveness is “our ability to produce goods and services that meet the test of international competitiveness while our citizens enjoy a standard of living that is both rising a sustainable.” This definition is given by the Council of Economic Advisors Chairman Laura D'Andrea Tyson's. According to Krugman (1996) the concept of competitiveness is “elusive or meaningless when applied to national economies; for economies with little international trade, competitiveness is a specifically maintained to be a funny way of saying productivity”. Other author consider that international competitiveness is said to occur whenever the economic welfare of a nation is advanced through an increase in the flow of trade or through an alteration in the conditions of trade starting from a presumed initial equilibrium (Coldwell 2000).

Marsh and Tokarick (1996) emphasized that the competitiveness of an economy is based on real exchange rate indicators using consumer prices, export unit value, unit labor costs.

According to the well knows Porter’s diamond model (1990) the determinants of national competitive advantage are:

- (1) Factor conditions, broken down into basic factor conditions and advanced factor conditions;
- (2) Demand conditions, such as the degree of sophistication of buyers, market size and so on;
- (3) The role of related and supporting industries through coordination and sharing activities in the value chain in promoting competitiveness; and

(4) Firms' strategy, structure, and rivalry, such as the ways in which they are managed and choose to compete.

Change and government are also two external variables that interact in the "diamond" of competitive advantage. The nature of a country's international competitiveness depends upon the type and quality of these interactions. The four determinants for a nation shape the environment in which local firms compete and promote or impede the creation of competitive conditions (Liu and Hsu 2009).

From Siggel (2006) point of view "countries may compete for market share or for foreign investment, but the attribute of stability, good government and profitable investment opportunities, are better summarized as a favorable business climate than competitiveness". He has made a survey in order to compare different way to measure international competitiveness taking into consideration the concept and their characteristics.

Given the complexity of the concept and of its consequences, it is obvious that the determinants of the international competitiveness of an economy are very heterogeneous – in time and in space; in order to accurate identify, evaluate and measure the dynamics of competitiveness – in volume, as well as in structure, WEF identified and developed (within the Global Competitiveness Report that it prepares each year) 12 pillars of competitiveness. These pillars are described below:

- (1) *Institutions*. The institutional environment is determined by the legal and administrative framework within which individuals, firms, and governments interact to generate income and wealth in the economy.
- (2) *Infrastructure*. Extensive and efficient infrastructure is critical for ensuring the effective functioning of the economy, as it is an important factor determining the location of economic activity and the kinds of activities or sectors that can develop in a particular economy.
- (3) *Macroeconomic stability*. The stability of the macroeconomic environment is important for business and, therefore, is important for the overall competitiveness of a country.
- (4) *Health and primary education*. A healthy workforce is vital to a country's competitiveness and productivity. Workers who are ill cannot function to their potential and will be less productive. Poor health leads to significant costs to business, as sick workers are often absent or operate at lower levels of efficiency.
- (5) *Higher education and training*. Quality higher education and training is crucial for economies that want to move up the value chain beyond simple production processes and products.
- (6) *Goods market efficiency*. Countries with efficient goods markets are well positioned to produce the right mix of products and services given their particular supply-and-demand conditions, as well as to ensure that these goods can be most effectively traded in the economy.
- (7) *Labor market efficiency*. The efficiency and flexibility of the labor market are critical for ensuring that workers are allocated to their most efficient use in the economy and provided with incentives to give their best effort in their jobs.
- (8) *Financial market sophistication*. The recent financial crisis has highlighted the central role of a sound and well-functioning financial sector for economic activities.
- (9) *Technological readiness*. In today's globalized world, technology has increasingly become an important element for firms to compete and prosper.
- (10) *Market size*. The size of the market affects productivity since large markets allow firms to exploit economies of scale. Traditionally, the markets available to firms have been constrained by national borders. In the era of globalization, international markets have become a substitute for domestic markets, especially for small countries.
- (11) *Business sophistication*. Business sophistication is conducive to higher efficiency in the production of goods and services. This leads, in turn, to increased productivity, thus enhancing a nation's competitiveness. Business sophistication concerns the quality of a country's overall business networks as well as the quality of individual firms' operations and strategies.
- (12) *Innovation*. The final pillar of competitiveness is technological innovation. Although substantial gains can be obtained by improving institutions, building infrastructure, reducing macroeconomic instability, or improving human capital, all these factors eventually seem to run into diminishing returns.

The World Economic Forum divides countries in 5 stage of development taking into consideration the level of GDP per capita and the key driven of an economy (Table 1).

**Table 1. The pillars of competitiveness and stages of development**

Competitiveness pillars	Stage of development		Transition from stage 1 to stage 2	Transition from stage 2 to stage 3	Innovation-driven economies Stage 3
	Factor-driven economies Stage 1	Efficiency-driven economies Stage 2			
Basic requirements	60%	40%	Transition from stage 1 to stage 2	Transition from stage 2 to stage 3	20%
Efficiency enhancers	35%	50%			50%
Innovation and sophistication factors	5%	10%			30%
Total (%)	100	100			100
GDP per capita (US\$)	< 2000	2000-3000	3000-9000	9000-17000	> 17000

## 2. Data and scenarios for Romania

Romania's economy is characterized by a series of *constraints* such as: lack of long-term national and sectoral strategies leading to lack of predictability; corruption and lack of competent personnel in public administration; poor transport infrastructure and insufficient electricity distribution network; failure to access available EU funds compared with other EU states (Romania Competitiveness Report, 2011 ). Despite that Romania has a series of *competitive advantages* like: market size - Romania being the 7th in size within EU - and strategic geopolitical location; labor force – relatively low cost due to low salaries, available multilingual, creative, talented, flexible workforce, available technical and sector-specific skills; availability of national natural resources; opportunity for large infrastructure projects/investments - water supplies, sewage systems, roads, railways, underground transportation networks, etc; flat tax; friendly, welcoming culture and mentality (Romania Competitiveness Report, 2011). The main sectors that are able to create competitive advantage for Romania are ICT, agricultura, energy, tourism.

According to Dobrescu (2010) the competitiveness of the Romania ought to be sustained in the following directions: „reduction in production costs simultaneously with the improvement of the quality of products, which are decisive: actively participation in the international efforts against protectionist tendencies, wich means that the exporting firms must be stimulated and assisted to penetrate new markets, especially in more dynamic economic areas; maintaining the exchange rate at a reasonable level is also important”.

Romania is an efficiency-driven economy with a GDP per capita of 7.542 US\$ in 2010, GDP per capita that placed it in stage 2 of development. It is on the 77<sup>th</sup> position on the Global Competitiveness Rank. According to Global Competitiveness Report notable competitive advantages are: at the 2<sup>nd</sup> pillar Infrastructure – mobile telephone subscriptions; at the 5<sup>th</sup> pillar Higher education and training – tertiary education enrollment rate and quality of math and science education; at the 6<sup>th</sup> pillar Goods market efficiency – time required to start a business, prevalence of trade barriers and trade tariffs; at the 9<sup>th</sup> pillar Technological readiness – broadband internet subscriptions and internet bandwidth; at the 10<sup>th</sup> pillar Market size – domestic and foreign market size indexes (See table 2).

Table 2. Pillars of competitiveness and notable competitive advantage for Romania

GCI pillars	Score 2009/2010	Score 2010/2011	Score 2011/2012	Romania's notable competitive advantage
<b>Basic requirements</b>	<b>4.1</b>	<b>4.4</b>	<b>4.3</b>	
1 <sup>st</sup> pillar: Institutions	3.7	3.7	3.5	Business cost of terrorism Business cost of crime and violence Organized crime Strength of investor protection
2 <sup>nd</sup> pillar: Infrastructure	2.7	3.4	3.4	Mobile telephone subscriptions
3 <sup>rd</sup> pillar: Macroeconomic environment	4.6	4.5	4.5	Government debt
4 <sup>th</sup> pillar: Health and primary education	5.5	5.8	5.7	HIV prevalence
<b>Efficiency enhancers</b>	<b>4.3</b>	<b>4.2</b>	<b>4.1</b>	
5 <sup>th</sup> pillar: Higher education and training	4.3	4.5	4.4	Tertiary education enrollment rate Quality of math and science education
6 <sup>th</sup> pillar: Goods market efficiency	4.2	4.1	4.0	Number of procedures required to start a business Time required to start a business Prevalence of trade barriers Trade tariffs
7 <sup>th</sup> pillar: Labor market efficiency	4.3	4.3	4.1	Redundancy costs Pay and productivity
8 <sup>th</sup> pillar: Financial market development	4.4	4.0	3.9	Legal right index
9 <sup>th</sup> pillar: Technological readiness	3.8	3.8	3.8	Broadband internet subscriptions Internet bandwidth
10 <sup>th</sup> pillar: Market size	4.5	4.4	4.4	Domestic market size index Foreign market size index
<b>Innovation and sophistication factors</b>	<b>3.4</b>	<b>3.2</b>	<b>3.2</b>	
11 <sup>th</sup> pillar: Business sophistication	3.8	3.5	3.5	-
12 <sup>th</sup> pillar: Innovation	3.1	2.9	2.9	-
<b>GCI</b>	<b>4.1</b>	<b>4.2</b>	<b>4.1</b>	

Source: Data collected from WEF, GCR 2009-2010, 2010-2011, 2011-2012 (See Annexes 1a, b, c)

GCI it is calculated according to formula:

$$\text{GCI} = 0.4 \times \text{BR} + 0.5 \times \text{EE} + 0.1 \times \text{ISF}$$

Where,

BC – score of Basic requirements

EE – score of Efficiency enhancers

ISF – score of Innovation and sophistication factors

## 2.1. Base scenario

It will be considered as base scenario the result from 2011/2012 report.

<b>GCI pillars</b>	<b>Score 2011/2012</b>
<b>Basic requirements</b>	<b>4.3</b>
1 <sup>st</sup> pillar: Institutions	3.5
2 <sup>nd</sup> pillar: Infrastructure	3.4
3 <sup>rd</sup> pillar: Macroeconomic environment	4.5
4 <sup>th</sup> pillar: Health and primary education	5.7
<b>Efficiency enhancers</b>	<b>4.1</b>
5 <sup>th</sup> pillar: Higher education and training	4.4
6 <sup>th</sup> pillar: Goods market efficiency	4.0
7 <sup>th</sup> pillar: Labor market efficiency	4.1
8 <sup>th</sup> pillar: Financial market development	3.9
9 <sup>th</sup> pillar: Technological readiness	3.8
10 <sup>th</sup> pillar: Market size	4.4
<b>Innovation and sophistication factors</b>	<b>3.2</b>
11 <sup>th</sup> pillar: Business sophistication	3.5
12 <sup>th</sup> pillar: Innovation	2.9

$$\text{GCI} = 0.4 \times 4.3 + 0.5 \times 4.1 + 0.1 \times 3.2 = 4.1$$

Changes from base scenario that have an impact on GCI score:

	<b>Optimist scenario</b>	<b>Pessimist scenario</b>
<b>Basic requirements (4.3)</b>	Increase with 0.1 points	Decrease with 0.1 points
<b>Efficiency enhancers (4.1)</b>	Increase with 0.1 points	Decrease with 0.1 points
<b>Innovation and sophistication factors (3.2)</b>	Increase with 0.1 points	Decrease with 0.1 points

## 2.2. Optimist scenarios

Optimist scenario when Basic requirement increase with 0.1 points from base scenario

$$\text{GCI} = 0.4 \times 4.4 + 0.5 \times 4.1 + 0.1 \times 3.2 = 4.13$$

Optimist scenario when Efficiency enhancers increase with 0.1 points from base scenario

$$\text{GCI} = 0.4 \times 4.3 + 0.5 \times 4.2 + 0.1 \times 3.2 = 4.14$$

Optimist scenario when Innovation and sophistication factors increase with 0.1 points from base scenario

$$\text{GCI} = 0.4 \times 4.3 + 0.5 \times 4.1 + 0.1 \times 3.3 = 4.1$$

In the most optimistic scenario it can be considered that BC is 4.4, EE is 4.3, and ISF is 3.4. These values are scores that the three variables have registered in the past 3 years. In this scenario, GCI score is:

$$\text{GCI} = 0.4 \times 4.4 + 0.5 \times 4.3 + 0.1 \times 3.4 = 4.25$$

### 2.3. Pessimist scenarios

Pessimist scenario when Basic requirement decrease with 0.1 points from base scenario

$$\text{GCI} = 0.4 \times 4.2 + 0.5 \times 4.1 + 0.1 \times 3.2 = 4.05$$

Pessimist scenario when Efficiency enhancers decrease with 0.1 points from base scenario

$$\text{GCI} = 0.4 \times 4.3 + 0.5 \times 4.0 + 0.1 \times 3.2 = 4.04$$

Pessimist scenario when Innovation and sophistication factors decrease with 0.1 points from base scenario

$$\text{GCI} = 0.4 \times 4.3 + 0.5 \times 4.1 + 0.1 \times 3.1 = 4.08$$

In the worst scenario it can be considered that BC is 4.1, EE is 4.1, and ISF is 3.2. These values are scores that the three variables have registered in the past 3 years. In this scenario, GCI score is:

$$\text{GCI} = 0.4 \times 4.1 + 0.5 \times 4.1 + 0.1 \times 3.2 = 4.01$$

### 3. Conclusions

Unfortunately, according to last Global Competitiveness Report 2011-2012, Romania has lost 10 positions from the last report (currently 77 ranks). This means that Romania has serious problems with almost all pillars of competitiveness from basic requirements to innovation and sophistication factors (See Annex 2).

According to optimistic scenarios that were built, GCI score will increase from base scenario with: 0.03 if basic requirement score increase with 0.1 points, 0.04 if efficiency enhancers score increase with 0.1 points. In the most optimistic scenario it can be considered that BC is 4.4, EE is 4.3, and ISF is 3.4. These values are scores that the three variables have registered in the past 3 years. In this scenario, GCI score is 4.25 with 0.15 points higher from base scenario.

According to pessimistic scenarios that were built, GCI score will decrease from base scenario with: 0.05 if basic requirement score decrease with 0.1 points, 0.06 if efficiency enhancers score decrease with 0.1 points. In the worst scenario it can be considered that BC is 4.1, EE is 4.1, and ISF is 3.2. These values are scores that the three variables have registered in the past 3 years. In this scenario, GCI score is 4.01 with 0.09 points less from base scenario.

In conclusion, Romania must learn from the experiences of other countries in order to increase the national competitiveness and must deal with the problematic factors that affect business environment.

### Acknowledgement

This work was supported by the project "Post-Doctoral Studies in Economics: training program for elite researchers - SPODE" co-funded from the European Social Fund through the Development of Human Resources Operational Programme 2007-2013, contract no. POSDRU/89/1.5/S/61755.).

### References

- Aiginger, K., (2006), *Revisiting an evasive concept: introduction to the special issue on competitiveness*, Journal of Industry, Competition and Trade, vol. 6, pp. 63-66.
- Boltho, A., (1996), *The assessment: international competitiveness*, Oxford review of economic policy, vol. 12, no. 3, pp. 1-16.

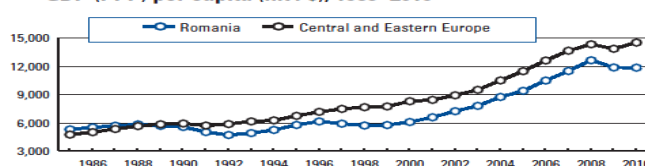
- Coldwell, D., (2000), *The question of international competitiveness*, International Advances in Economic Research, vol. 6, no. 3, pp. 417-426.
- Dobrescu, E., (2010), *Macromodel simulations for the Romanian economy*, Romanian Journal of Economic Forecasting, issue 2, pp. 7-28.
- Kao, C. et al., (2008), *Measuring the national competitiveness of Southeast Asian countries*, European Journal of Operational Research, no. 187, pp. 613-628.
- Krugman, P.R., (1996), *Making sense of the competitiveness debate*, Oxford Review of Economic Policy, vol. 12(3), pp. 17-25
- Liu, D-Y., Hsu, H-F. (2009), *An international comparison of empirical generalized double diamond model approaches to Taiwan and Korea*, Competitiveness Review: An International Business Journal, Vol. 19, No. 3, pp. 160-174.
- Marsh, I. and Tokarick, S. (1996), *An Assessment of Three Measures of Competitiveness*, Review of World Economics, vol 132, no. 4, pp. 700-722.
- Onsel S et al., (2008), *A new perspective on the competitiveness of nations*, Socio-Economic Planning Sciences, no. 42, pp. 221-246.
- Porter, M.E. (1990), *Competitive Advantage of Nations*, Free Press, New York, NY.
- Romania Competitiveness Report, (2001), *Statistical Assessment and Executive Survey of Romanian Economic Policy*, AmCham Romania, 2011, available at [www.amcham.ro](http://www.amcham.ro).
- Sala-I-Martin, X., Blanke, J., Drzeniek, M. Hanouz., Geiger, T. and Mia, I. (2009), *The Global Competitiveness Index 2009-2010 – Contributing to Long-Term Prosperity amid the Global Economic Crisis*, World Economic Forum (WEF), The Global Competitiveness Report 2009-2010.
- Siggel, E. (2006), *International Competitiveness and Comparative Advantage: A Survey and a Proposal for Measurement*, Journal of Industry, Competition and Trade, no. 6, pp. 137 – 159.
- Thompson, E., (2004), *National Competitiveness: a question of cost conditions or institutional circumstances*, British Journal of Management, vol. 15, pp. 197-218.
- World Economic Forum, Global Competitiveness Report 2010-2011, available at [www.weforum.org](http://www.weforum.org)
- World Economic Forum, Global Competitiveness Report 2011-2012, available at [www.weforum.org](http://www.weforum.org)

## Annex 1a, Romania 2011-2012

### Key indicators, 2010

Population (millions).....	21.2
GDP (US\$ billions).....	161.6
GDP per capita (US\$).....	7,542
GDP (PPP) as share (%) of world total.....	0.34

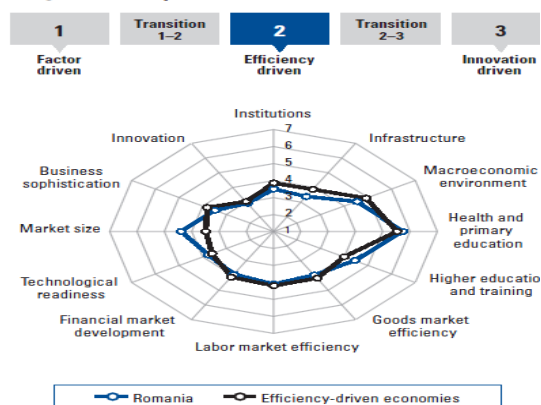
GDP (PPP) per capita (int'l \$), 1985–2010



### Global Competitiveness Index

	Rank (out of 142)	Score (1–7)
<b>GCI 2011–2012</b> .....	<b>77</b>	<b>4.1</b>
GCI 2010–2011 (out of 139).....	67	4.2
GCI 2009–2010 (out of 133).....	64	4.1
<b>Basic requirements (40.0%)</b> .....	<b>89</b>	<b>4.3</b>
Institutions.....	99	3.5
Infrastructure.....	95	3.4
Macroeconomic environment.....	87	4.5
Health and primary education.....	66	5.7
<b>Efficiency enhancers (50.0%)</b> .....	<b>62</b>	<b>4.1</b>
Higher education and training.....	55	4.4
Goods market efficiency.....	96	4.0
Labor market efficiency.....	92	4.1
Financial market development.....	84	3.9
Technological readiness.....	60	3.8
Market size.....	44	4.4
<b>Innovation and sophistication factors (10.0%)</b> .....	<b>99</b>	<b>3.2</b>
Business sophistication.....	102	3.5
Innovation.....	95	2.9

### Stage of development

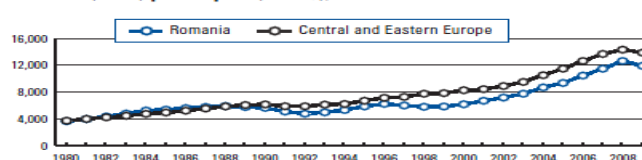


## Annex 1b, Romania 2010-2011

### Key indicators, 2009

Population (millions).....	21.3
GDP (US\$ billions).....	161.5
GDP per capita (US\$).....	7,542
GDP (PPP) as share (%) of world total.....	0.36

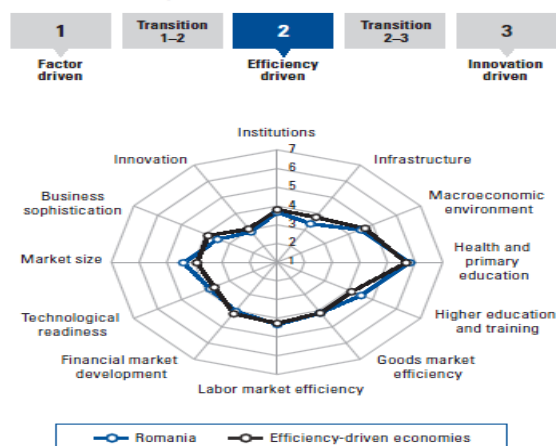
GDP (PPP) per capita (int'l \$), 1980–2009



### Global Competitiveness Index

	Rank (out of 139)	Score (1–7)
<b>GCI 2010–2011</b> .....	<b>67</b>	<b>4.2</b>
GCI 2009–2010 (out of 133).....	64	4.1
GCI 2008–2009 (out of 134).....	68	4.1
<b>Basic requirements</b> .....	<b>77</b>	<b>4.4</b>
1st pillar: Institutions.....	81	3.7
2nd pillar: Infrastructure.....	92	3.4
3rd pillar: Macroeconomic environment.....	78	4.5
4th pillar: Health and primary education.....	63	5.8
<b>Efficiency enhancers</b> .....	<b>54</b>	<b>4.2</b>
5th pillar: Higher education and training.....	54	4.5
6th pillar: Goods market efficiency.....	76	4.1
7th pillar: Labor market efficiency.....	76	4.3
8th pillar: Financial market development.....	81	4.0
9th pillar: Technological readiness.....	58	3.8
10th pillar: Market size.....	43	4.4
<b>Innovation and sophistication factors</b> .....	<b>91</b>	<b>3.2</b>
11th pillar: Business sophistication.....	93	3.5
12th pillar: Innovation.....	87	2.9

### Stage of development



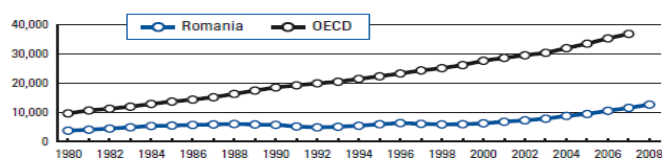


## Annex 1c, Romania 2009-2010

### Key indicators

Population (millions), 2008.....	21.3
GDP (US\$ billions), 2008.....	199.7
GDP per capita (US\$), 2008.....	9,291.7
GDP (PPP) as share (%) of world total, 2008 .....	0.39

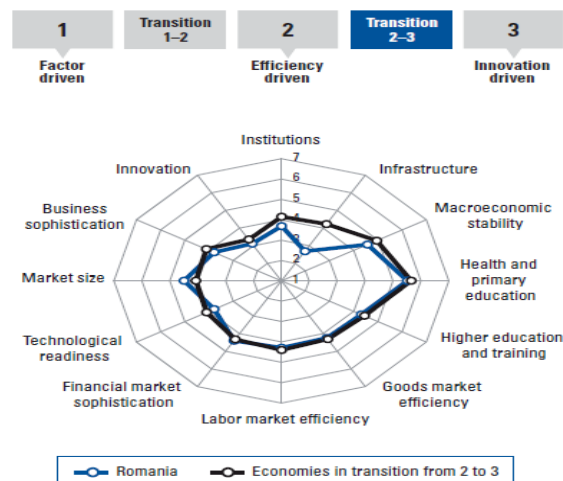
GDP (PPP int'l \$) per capita, 1980–2008



### Global Competitiveness Index

	Rank (out of 133)	Score (1–7)
<b>GCI 2009–2010</b> .....	<b>64</b>	<b>4.1</b>
GCI 2008–2009 (out of 134).....	68	4.1
GCI 2007–2008 (out of 131).....	74	4.0
<b>Basic requirements</b> .....	<b>86</b>	<b>4.1</b>
1st pillar: Institutions.....	84	3.7
2nd pillar: Infrastructure.....	110	2.7
3rd pillar: Macroeconomic stability.....	75	4.6
4th pillar: Health and primary education.....	63	5.5
<b>Efficiency enhancers</b> .....	<b>49</b>	<b>4.3</b>
5th pillar: Higher education and training.....	52	4.3
6th pillar: Goods market efficiency.....	61	4.2
7th pillar: Labor market efficiency.....	79	4.3
8th pillar: Financial market sophistication.....	56	4.4
9th pillar: Technological readiness.....	58	3.8
10th pillar: Market size.....	41	4.5
<b>Innovation and sophistication factors</b> .....	<b>75</b>	<b>3.4</b>
11th pillar: Business sophistication.....	83	3.8
12th pillar: Innovation.....	70	3.1

### Stage of development



## The Global Competitiveness Index in detail

INDICATOR	VALUE	RANK/142	INDICATOR	VALUE	RANK/142
<b>1st pillar: Institutions</b>			<b>6th pillar: Goods market efficiency</b>		
1.01 Property rights.....	3.9	85	6.01 Intensity of local competition.....	4.5	97
1.02 Intellectual property protection.....	3.0	98	6.02 Extent of market dominance.....	3.6	74
1.03 Diversion of public funds.....	2.8	96	6.03 Effectiveness of anti-monopoly policy.....	3.7	93
1.04 Public trust of politicians.....	1.9	119	6.04 Extent and effect of taxation.....	2.5	135
1.05 Irregular payments and bribes.....	4.0	67	6.05 Total tax rate, % profits*.....	44.9	90
1.06 Judicial independence.....	3.1	94	6.06 No. procedures to start a business*.....	6	34
1.07 Favoritism in decisions of government officials.....	2.5	115	6.07 No. days to start a business*.....	10	40
1.08 Wastefulness of government spending.....	2.7	107	6.08 Agricultural policy costs.....	3.3	122
1.09 Burden of government regulation.....	2.8	105	6.09 Prevalence of trade barriers.....	4.5	69
1.10 Efficiency of legal framework in settling disputes.....	2.8	122	6.10 Trade tariffs, % duty*.....	0.8	4
1.11 Efficiency of legal framework in challenging regs.....	2.9	113	6.11 Prevalence of foreign ownership.....	4.5	84
1.12 Transparency of government policymaking.....	2.9	140	6.12 Business impact of rules on FDI.....	4.1	105
1.13 Business costs of terrorism.....	5.7	66	6.13 Burden of customs procedures.....	3.3	121
1.14 Business costs of crime and violence.....	4.9	62	6.14 Imports as a percentage of GDP*.....	44.0	68
1.15 Organized crime.....	4.9	87	6.15 Degree of customer orientation.....	4.1	106
1.16 Reliability of police services.....	3.7	90	6.16 Buyer sophistication.....	3.2	83
1.17 Ethical behavior of firms.....	3.4	103	<b>7th pillar: Labor market efficiency</b>		
1.18 Strength of auditing and reporting standards.....	4.3	91	7.01 Cooperation in labor-employer relations.....	3.3	137
1.19 Efficacy of corporate boards.....	4.3	99	7.02 Flexibility of wage determination.....	4.8	90
1.20 Protection of minority shareholders' interests.....	3.8	98	7.03 Rigidity of employment index, 0-100 (worst)*.....	46.0	118
1.21 Strength of investor protection, 0-100 (best)*.....	6.0	36	7.04 Hiring and firing practices.....	3.6	91
<b>2nd pillar: Infrastructure</b>			7.05 Redundancy costs, weeks of salary*.....	8	15
2.01 Quality of overall infrastructure.....	2.3	139	7.06 Pay and productivity.....	4.1	55
2.02 Quality of roads.....	2.1	137	7.07 Reliance on professional management.....	3.9	84
2.03 Quality of railroad infrastructure.....	2.4	78	7.08 Brain drain.....	2.2	131
2.04 Quality of port infrastructure.....	2.8	128	7.09 Women in labor force, ratio to men*.....	0.79	65
2.05 Quality of air transport infrastructure.....	3.6	113	<b>8th pillar: Financial market development</b>		
2.06 Available airline seat kms/week, millions*.....	174.6	68	8.01 Availability of financial services.....	3.9	104
2.07 Quality of electricity supply.....	4.5	77	8.02 Affordability of financial services.....	3.6	106
2.08 Fixed telephone lines/100 pop.*.....	20.9	60	8.03 Financing through local equity market.....	3.2	89
2.09 Mobile telephone subscriptions/100 pop.*.....	114.7	49	8.04 Ease of access to loans.....	2.6	82
<b>3rd pillar: Macroeconomic environment</b>			8.05 Venture capital availability.....	2.5	77
3.01 Government budget balance, % GDP*.....	-6.5	114	8.06 Soundness of banks.....	4.5	110
3.02 Gross national savings, % GDP*.....	22.2	55	8.07 Regulation of securities exchanges.....	3.7	106
3.03 Inflation, annual % change*.....	6.1	105	8.08 Legal rights index, 0-10 (best)*.....	8.0	20
3.04 Interest rate spread, %*.....	6.8	90	<b>9th pillar: Technological readiness</b>		
3.05 General government debt, % GDP*.....	35.2	52	9.01 Availability of latest technologies.....	4.2	115
3.06 Country credit rating, 0-100 (best)*.....	49.3	73	9.02 Firm-level technology absorption.....	4.1	117
<b>4th pillar: Health and primary education</b>			9.03 FDI and technology transfer.....	4.5	83
4.01 Business impact of malaria.....	N/Apl.	1	9.04 Internet users/100 pop.*.....	39.9	63
4.02 Malaria cases/100,000 pop.*.....	(NE)	1	9.05 Broadband internet subscriptions/100 pop.*.....	14.0	42
4.03 Business impact of tuberculosis.....	5.0	80	9.06 Internet bandwidth, kb/s/capita*.....	20.5	33
4.04 Tuberculosis incidence/100,000 pop.*.....	125.0	96	<b>10th pillar: Market size</b>		
4.05 Business impact of HIV/AIDS.....	5.3	67	10.01 Domestic market size index, 1-7 (best)*.....	4.2	42
4.06 HIV prevalence, % adult pop.*.....	0.1	21	10.02 Foreign market size index, 1-7 (best)*.....	4.9	46
4.07 Infant mortality, deaths/1,000 live births*.....	10.0	55	<b>11th pillar: Business sophistication</b>		
4.08 Life expectancy, years*.....	73.3	71	11.01 Local supplier quantity.....	4.4	100
4.09 Quality of primary education.....	4.0	62	11.02 Local supplier quality.....	4.0	104
4.10 Primary education enrollment, net %*.....	90.3	92	11.03 State of cluster development.....	2.8	116
<b>5th pillar: Higher education and training</b>			11.04 Nature of competitive advantage.....	2.9	103
5.01 Secondary education enrollment, gross %*.....	91.6	56	11.05 Value chain breadth.....	3.1	103
5.02 Tertiary education enrollment, gross %*.....	65.6	23	11.06 Control of international distribution.....	3.5	116
5.03 Quality of the educational system.....	3.3	90	11.07 Production process sophistication.....	3.3	91
5.04 Quality of math and science education.....	4.5	45	11.08 Extent of marketing.....	3.8	86
5.05 Quality of management schools.....	3.8	92	11.09 Willingness to delegate authority.....	3.3	96
5.06 Internet access in schools.....	4.4	58	<b>12th pillar: Innovation</b>		
5.07 Availability of research and training services.....	3.3	112	12.01 Capacity for innovation.....	2.9	78
5.08 Extent of staff training.....	3.8	79	12.02 Quality of scientific research institutions.....	3.2	91
			12.03 Company spending on R&D.....	2.9	87
			12.04 University-industry collaboration in R&D.....	3.0	115
			12.05 Gov't procurement of advanced tech products.....	3.1	111
			12.06 Availability of scientists and engineers.....	4.2	59
			12.07 Utility patents granted/million pop.*.....	0.8	62

Notes: Values are on a 1-to-7 scale unless otherwise annotated with an asterisk (\*). For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 89.

# KNOWLEDGE MANAGEMENT IN EU FOUNDED PROJECTS

*ILIES Liviu*

*Professor, Faculty of Economics and Business Administration, Department of Management, Babeş-Bolyai University, Cluj Napoca, Romania, liviu.ilies@econ.ubbcluj.ro*

*MURESAN Ioana Natalia \**

*Ph.D. student, Faculty of Economics and Business Administration, Department of Management, Babeş-Bolyai University, Cluj Napoca, Romania, ioana.muresan@econ.ubbcluj.ro*

*MUNTEAN Bianca*

*Ph.D. student, Faculty of Economics and Business Administration, Department of Management, Babeş-Bolyai University, Cluj Napoca, Romania, bianca\_muntean@yahoo.com*

**Abstract:** In a dynamic environment, with an increasing level of competitiveness, projects might be a solution for handling complexity. But when dealing with projects not only the objectives' achievement is important. The way of dealing with new information during and after the project implementation is also a critical success factor in the case of the project and on a long term, of the organization. The article concentrates on the link between projects and knowledge, and presents the opinion of some Romanian project managers about managing knowledge when dealing with projects, in the case of projects financed by the European Union.

**Key words:** project, knowledge, project management, knowledge management

**JEL classification:** D83

## 1. Introduction

As a member of the European Union (EU), Romania is facing an important development opportunity. The total amount of structural and cohesion funds allocation for Romania, for the period 2007-2013, is over 19 billion Euros, being on the 9th place among the largest financial allocations for this period (Government of Romania, 2007). Significant investments were made in Romania, before and after the accession to the European Union, through projects financed by the European Union in order to implement European policies.

Starting the 1<sup>st</sup> of January 2007, until the 31<sup>st</sup> of March 2012, there were a number of 32.183 projects applying for European funding in Romania, according to the Authority for Coordination of Structural Instruments. From the total number of project applying for EU funding in the period 2007-2011, there were 10.304 projects approved for funding. The total value of the approved projects was over 25 billion Euros and the European contribution was over 15 billion Euros. The number of funding contracts or agreements signed in this period was 8.218, which means that from the 10.304 projects approved for EU funding, 8.218 projects were at the end of March 2012 implemented or under implementation. The detailed description of the situation at the end of March 2012 is presented in the table below (Table 1).

**Table 1: The situation of projects financed from EU funds on 31 March 2012**

1 euro = 4,3480 lei

EU allocation 2007 – 2013 (cumulative ) (billion Euro)	Number of projects approved for EU funding	Value of approved projects (billion Euro)	EU contribution on approved projects (billion Euro)	% EU contribution on approved projects/ EU allocation for 2007- 2013	Number of funding contracts signed	Amounts reimbursed from the CE (billion Euro)	% Amounts reimbursed from the CE/ EU allocation for 2007- 2013
1	2	3	4	$5=4/1 *100$	6	7	$8=7/1 *100$
19,213	10.304	25,352	15,724	81,84	8.218	1,260	6,56

Source: The Authority for Coordination of Structural Instruments of Romania

Projects are the principal way of creating and dealing with change (Cleland and Gareis, 2006), being used with increasing frequency in all fields. The increasing use of projects determined the development of the research in this area.

Different approaches regarding the perception of projects exist (Gareis, 2005, p. 39-41). Projects can be seen as tasks with special characteristics: "A project is a temporary endeavor undertaken to create a unique product, service, or result. The temporary nature of projects indicates a definitive beginning and end" (PMI, 2008, p. 5).

Some authors also define projects as temporary organizations and social systems: A project is a temporary and transient organization surrounded by inherent uncertainty (Turner and Muller, 2003). A project can be defined as "a temporary organization of a project-oriented organization for the performance of a relatively unique, short to medium term, strategically important business process of medium or large complexity" (Gareis, 2005, p. 41). Organizations and also projects can be viewed as social systems which have clear boundaries to differentiate them themselves from their environment, according to social system theory (Gareis, 2005).

Projects are favorable environments for knowledge creation. Knowledge is considered an intangible resource within an organization, which contributes to obtaining competitive advantage. Knowledge can be defined as a set of skills, experiences, information and skills that apply to solving problems (Baker et al, 1997). On the other hand, knowledge is a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organizations, it often becomes embedded not only in documents or repositories but also in organizational routines, processes, practices, and norms (Davenport and Prusak, 1998).

The literature offers a number of different knowledge taxonomies. Drawing on the work of Polanyi (1958), Nonaka (1994) explained the most cited classification of knowledge distinguishing tacit and explicit knowledge dimensions. The author also views knowledge as individual or collective. Other classifications (Alavi, Leidner, 2001) refer to knowledge as declarative (know-about) or knowledge by acquaintance (Nolan Norton, 1998), procedural (know-how), causal (know-why), conditional (know-when), and relational (know-with) (Zack, 1998).

Likewise, research in the domain of knowledge management seems fragmented. According to Sveiby (1997) the expression "managing knowledge" appears for the first time in a context of artificial intelligence at the end of 1980s. Early research in the field of KM was interested on the possibility of using information technology to support the process of individual learning. Again, in the artificial intelligence community, Wiig (1993) was one of the first scholars to recognize the limits of a primarily technological approach and he *defined KM in term of creation, learning, sharing (transferring), and using or leveraging knowledge as a set of social and dynamic processes that needed to be managed* (Iandoli, Zollo, 2007). Almost at the same time, Nonaka and his research group conducted a number of studies on the management of innovation processes in large Japanese companies. These studies together with the total quality management movement and the concept of continuous improvement, re-evaluate the overall role that human resources play at all levels in organizations discovering what was not yet obvious in organizational practice: *the centrality of the individual in the knowledge creation process* and the consequent need to recognize the person's necessary level of competence and autonomy (Nonaka, Takeuchi, 1995). Most of the contributions in the vast literature on KM can be summarized to one of these two approaches or attempts to integrate the two perspectives (Iandoli, Zollo, 2007).

Bhatt, (2001) defined KM as a process of knowledge creation, validation, presentation, distribution, and application. These five phases in knowledge management allow an organization to learn, reflect, and unlearn and relearn, usually considered essential for building, maintaining, and replenishing of core-competencies.

In a broad sense, Quintas et al. (1997) define knowledge management as the process of continually managing knowledge of all kinds to meet existing and emerging needs, to identify and exploit existing and acquired knowledge assets and to develop new opportunities.

The KM definition suggested by Iandoli and Zollo (2007): "*KM is the process of creating, capturing, and using knowledge to enhance organizational performance. It refers to a range of practices and techniques used by organizations to identify, represent, and distribute knowledge, know-how, expertise, intellectual capital, and other forms of knowledge for leverage, reuse and transfer of knowledge and learning across the organization*" simultaneously refers to objectives, knowledge involved, tools and phases of KM. Knowledge management is a set of practices applied by an organization to create, store, use and share knowledge (Probst et al, 1998).

In projects, seen as temporary organizations, knowledge management is increasingly important although relatively few studies link the two fields: knowledge management and project management. Knowledge management in projects focus not only on the knowledge created within the project but also on the knowledge transferred between projects and the knowledge on projects in general (Schindler, 2002). The temporary nature and uniqueness of projects can be an obstacle to learning (Hanisch et al, 2009), which can cause loss of important knowledge. Knowledge transfer between or in projects can be achieved through personal interaction or through documents. Hanisch et al synthesized five main objectives of knowledge management in projects, in addition to reducing costs and time of project implementation (Hanisch et al, 2009):

- Increasing work efficiency and reducing risk by capitalizing the experience gained during other projects and applying knowledge acquired during earlier projects;
- Learning by repetition, or in other words avoiding repetition of mistakes and continuous improvement;
- Optimal allocation of human resources in projects, by taking into account the capacity and competence of employees;
- Identifying and implementing innovative ideas using the potential of interdisciplinary collaboration;
- Harmonization of project management methods/ standardizing, by identifying best practices and turning them into standards, use of consistent terminology.

Based on the literature presented above, we formulate the central research question of this article: “What is the opinion of Romanian project managers about managing knowledge when dealing with projects?”

In order to answer the research questions we present below, the methodology and the results of our research.

## **2. Methodology**

The goal of the research is to analyze the opinion of some Romanian projects managers about managing knowledge when dealing with projects.

Considering the high frequency of projects financed by the European Union in the last years in Romania, we will focus our research on analyzing the opinion of project managers of this specific type of projects. Although there are several differences between managing projects financed by EU and those financed from other funds, dealing with knowledge appropriately improves the results of current and future projects in both cases. Knowledge management can be applied when dealing with projects, regardless of their funding or other specific elements.

In order to answer the central research question, we developed a questionnaire addressed to project managers of EU funded projects. For convenience reasons the questionnaire was sent by e-mail to project managers from the Northern Transylvania region (Nord-Vest region) of Romania. In other words we can say that the surveyed population was selected from a sample of convenience. The sample of convenience is defined by Marczyk et al as “simply a potential source of research participants that is easily accessible to the researcher” (Marczyk et al, 2005).

From the questionnaire we will analyze in this article:

1. The opinion of project managers related to the topic discussed in this article;

In this part of the questionnaire, two different statements will be discussed with several Romanian project managers:

- Projects are an important source of information and knowledge which are useful for the organization.
- Your organization supports the knowledge transfer in and between projects.

The respondents were asked to rate their point of view related to the statements above on a numeric continuum from 1 to 5, where 1 means strongly disagree, 2 means disagree, 3 means undecided, 4 means agree and 5 means strongly agree to the statement. We used the Likert scale in this part of the questionnaire.

2. Some specific identification data, such as: the type of the organization the project managers belong to and the number of projects implemented by the organization since 2007. The response format for all questions in the questionnaire is closed-ended.

Since this research is part of a more complex one that at this moment of time still takes place, from the questionnaires sent we received nineteen valid responses. The number of responses can be

considered a limit of our research. We hope to improve the response rate in the months to come, as the research continues.

In order to further develop the research, we decided to interview four of the project managers that answered the questionnaire and ask them: “How does their organization support the knowledge transfer when dealing with projects?”

Although many researchers prefer either qualitative or quantitative methods of research, we consider that integrating the two approaches increases the quality of the research, since qualitative methods bring feedback and help interpret findings. For this reason, the data collected through the questionnaire is statistically analyzed but we also apply and interpret some interviews to complete the research.

### 3. Data analyzing and results

In the first subsection we analyze the responses received to the questionnaire and in the second subsection we present the results of the interviews applied to the project managers.

#### 3.1 Analyzing the questionnaire

The valid responses received from the project managers were analyzed using the SPSS 19 program. According to the answers received, the organizations that the questioned project managers belong to have an important experience with EU founded projects. Most of them implemented more than three projects since the year 2007 (Table 2). In these cases the topic of knowledge management when dealing with projects is even more important, in order to increase the performance within projects and the competitiveness of the organization.

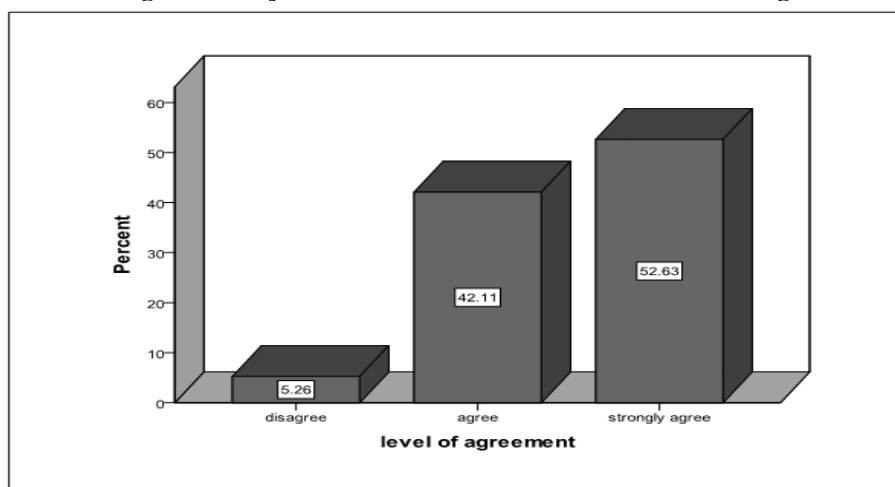
**Table 2: No. of projects implemented by the organizations since 2007**

Number of projects	Responses
1 project	3
2 projects	2
over 3 projects	14
<b>Total</b>	<b>19</b>

Source: SPSS

In the figure (Figure 1) below we present the frequencies of the answers the respondents gave when they were asked to rate the statement: “*Projects are an important source of information and knowledge which are useful for the organization*”.

**Figure 1: Projects as a source of information and knowledge**



Source: SPSS

From the total number of questioned project managers, 5,26% of the project managers disagree with the statement. They consider that projects are not an important source of information and knowledge, useful for the organization. But, the majority of the project managers questioned sees projects as an important source of information and knowledge. As it is presented in the Figure 1, 42,11% of the questioned project managers agree with the statement and 52,63% strongly agree with the statement.

We consider that analyzing the answers depending on the type of the organization the respondents belong to can represent an interesting point of view (Table 3). Ten of the questioned project managers work in public organizations and nine of them work in private organizations.

**Table 3: Responses depending on the type of organization – statement 1**

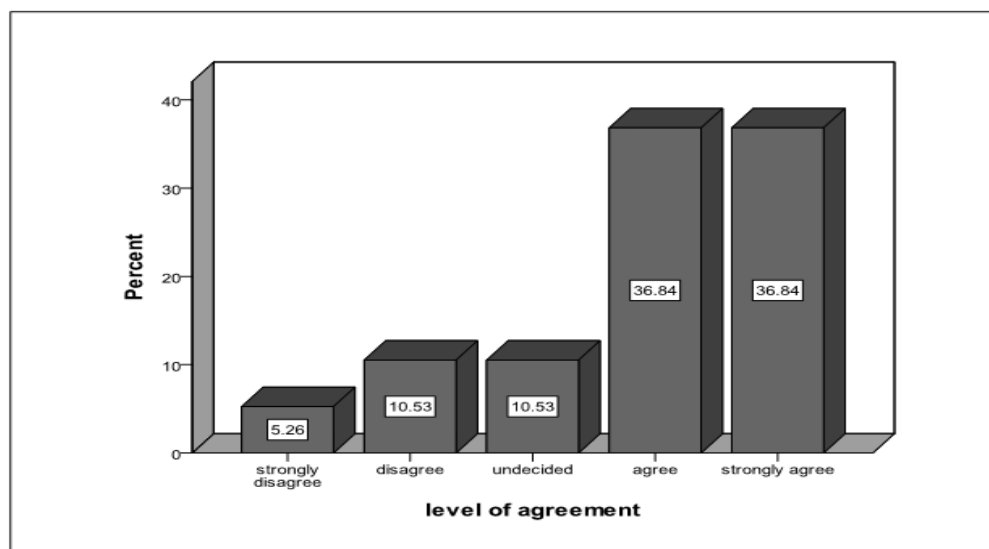
	Projects as source of information and knowledge			Total
	disagree	agree	strongly agree	
Organization type: public	1	6	3	10
private	0	2	7	9
Total	1	8	10	19

Source: SPSS

Although the majority of the respondents strongly agree with the statement, only three of them work in public organizations. From the project managers that agree with the statement, six work in public institutions and two in private organizations. The single respondent which considers that projects are not an important source of information and knowledge belongs to a public organization.

In Figure 2 we present the frequencies of the answers the respondents gave when they were asked to rate the statement: “*Your organization supports the knowledge transfer in and between projects*”. From the total number of questioned project managers, 5,26% of the project managers strongly disagree with the statement. They consider that their organization does not support at all the knowledge transfer in and between projects. The project managers which disagree with the statement represent 10,53% of the total number of questioned managers. They consider that their organization does not support the knowledge transfer. Again, most of the project managers agree or strongly agree with the statement, although the percentage is lower than it was in the case of the first statement. An equal percent of 36,84% of the questioned project managers consider that their organization is supportive or very supportive to the knowledge transfer in and between projects.

**Figure 2: The organization supports the knowledge transfer**



Source: SPSS

According to the answers analyzed in the table below (Table 4), from the total number of nineteen questioned managers, six project managers working in public organizations and eight project managers working in private organizations consider that their organization is supportive or very supportive to knowledge transfer in and between projects. There are also two project managers working in public organizations, which consider that their organization does not support the knowledge transfer when dealing with projects. The single respondent that strongly disagrees with the statement belongs to a private organization.

**Table 4: Responses depending on the type of organization – statement 2**

	The organization supports the knowledge transfer					Total
	strongly disagree	disagree	insecure	agree	strongly agree	
Organization type: public	0	2	2	4	2	10
private	1	0	0	3	5	9
Total	1	2	2	7	7	19

Source: SPSS

From the statistical data presented above, we can conclude that most of the questioned project managers consider projects as an important source of information and knowledge. Also, the majority of respondents work in organizations that support knowledge transfer. Depending on the type of organizations the respondents work in, we can observe that the number of project managers working in private organizations which agree with the second statement is higher. This might indicate that private organizations are more supportive to knowledge transfer when dealing with projects, than the public ones.

### 3.2 Analyzing the interviews

We consider that presenting the actual way organizations support knowledge transfer when dealing with projects enhances the results of the quantitative research from the previous subsection. All of the interviewed project managers work in private organizations. Below we present the received responses.

*Project manager No. 1* said that knowledge transfer within the organization he works in, is supported by means of a project environment that has two components:

- Standard project artifacts and processes that are created within a particular project and further on adapted for use in new projects and by new project teams;
- A learning routine that exists within a project team (inherent informal knowledge transfer from more experienced developers - tech leads, team leads etc. - to juniors in their team) and even between different project teams (by means of technical trainings and presentations - with information and training materials being available in a common repository).

*Project manager No. 2* said that in his organization, the employees specialized in project specific activities work in different projects, where their expertise is required. Also, there are project workshops, conferences, meetings and tutorials organized, where project specialists are invited to identify opportunities to increase efficiency in achieving the final project results, and improving organization's performance.

*Project manager No. 3* said that knowledge transfer between projects within the organization is assured through project meetings, manuals, coaching and mentoring activities, tutorials, informative workshops, simulations.

*Project manager No. 4* said that his company supports the knowledge transfer within a project by using a dichotomous criterion of relationship among employees. First of all is the professional relationship through which the knowledge is shared at its highest level in a "one to one" way by using specific documentation called SOW - Statement of Work, where one can find all the technical details necessary for that particular project. What makes the things go properly and in a natural way, is actually the second type of relationship, the human one. The organizational culture in this case is that investing in people and acting like a team for the benefit of the project is more important than being totally focused on the success of the project. These are the key factors of the knowledge transfer in their case and they claim that will always place the human resource on the top of everything within the organization, because they are aware that the team members represent the gold of any project.

## 4. Conclusions

An important achievement in project environments is that information and knowledge is created. Managing knowledge increases the success chances of projects on short term and the organizational performance on a long term.

Knowledge transfer when dealing with projects financed by the European Union is essential for achieving sustainable development, increasing productivity, innovation and competitiveness, creating



new jobs and supporting social progress. We focused the research on projects financed by the European Union and the opinion of project managers with experience in this field.

From the empirical study, we conclude that the topic of knowledge management in EU founded projects is considered to be of great interest by the project managers. The majority of questioned project managers consider projects as an important source of information and knowledge. Also, most of the project managers that answered the questions work in organizations that support knowledge transfer. These answers might be influenced by the experience of the organizations with EU founded project, as most of the questioned project managers work in organizations which implemented more than three projects since 2007.

The interviews prove once again that there are organizations, with experience in dealing with EU founded projects, which consider knowledge management in projects an important issue and are aware of the benefits it brings to projects and to the organization.

Considering the complexity and importance of the topic, research can be continued in this field, hoping to receive a higher number of responses from project managers in the next months. Also, it might be interesting to correlate the statements with the size of the organization where the project managers work and to analyze the level of knowledge on project management of the project team members.

## 5. References

- Alavi, M. and Leidner, D. (1999), *Knowledge Management Systems: Emerging Views and Practices from the field*, Communications of the AIS , Hawaii
- Baker, M., Baker, M., Thorne, J. and Dutnell, M. (1997), *Leveraging human capital*, Journal of Knowledge Management, Vol. 1 No. 1, p. 63-74
- Bhatt G.D. (2001), *Knowledge management in organizations: examining the interaction between technologies, techniques, and people*, 5(1): 68-75
- Cleland, D., Gareis, R. (2006), *Global Project Management Handbook, 2nd Edition*, McGraw-Hill Print
- Davenport, T. H., Prusak L. (1998), *Working Knowledge: How Organizations Manage What They Know*, Cambridge, MA: Harvard Business School Press
- Gareis, R. (2005), *Happy Projects!*, MANZ, Vienna
- Government of Romania (2007), *National Strategic Reference Framework 2007-2013*, Bucharest, Romania
- Hanisch, B., Lindner, F., Mueller, A., Wald, A. (2009), *Knowledge management in project environments*, Journal of Knowledge Management, Vol. 13 No. 4/2009, p. 148-160
- Iandoli, L. and Zollo, G. (2007), *Organizational Cognition and Learning: Building Systems for the Learning Organization*, Idea Group Inc. (IGI Global), London
- Marczyk, G.R., DeMatteo, D., Festinger, D. (2005), *Essentials of research design and methodology*, John Wiley & Sons Hoboken, NJ
- Nolan Norton Institute (1998), *Putting the Knowledge Organization to Value*, White Paper August
- Nonaka, I. (1994), *A dynamic theory of organizational knowledge creation*, Organization Science, 5 (1), 14-37
- Nonaka, I. and Takeuchi. H. (1995), *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*, Oxford University Press, New York
- Polanyi M. (1958), *Personal knowledge: Towards a post-critical philosophy*, London: Routledge & Kegan Paul
- Probst, G. et al, (1998) *Managing knowledge: How companies leverage their most valuable resources in an optimal use*, Gabler Verlag, Frankfurt
- Project Management Institute (2008), *A guide to the project management body of knowledge (PMBok Guide), 3rd edition*, Project Management Institute, Newtown Square
- Quintas P., Lefrere P., Jones G. (1997), *Knowledge management: a strategic agenda*, J. Long Range Planning, 30(3): 385-391
- Schindler, M. (2002), *Wissensmanagement in der Projektabwicklung*, 3rd ed., Josef Eul Verlag GmbH, Lohmar-Koln
- Sveiby K.E. (1997), *The intangible assets monitor*, J. Hum. Resour. Cost. Account, 2(1): 25-36

- The Authority for Coordination of Structural Instruments of Romania (2012), *Results*, <http://www.fonduri-ue.ro/stadiul-absorbției>, 19 April 2012
- Turner, J.R., Muller, R. (2003), *On the nature of the project as a temporary organization*, International Journal of Project Management 21, p. 1–8
- Wiig K. (1993), *Knowledge management foundations, Thinking about thinking: how people and organizations create and use knowledge*, Arlington TX, Schema press
- Zack, M. (1998), *What Knowledge Problems Can Information Technology Help to Solve*, Proceedings of the Americas Conference of AIS, pp. 644-646

***\*Investing in people!***

Ph.D. scholarship, Project co-financed by the SECTORAL OPERATIONAL PROGRAM FOR HUMAN RESOURCES DEVELOPMENT 2007 - 2013

**Priority Axis 1.** "Education and training in support for growth and development of a knowledge based society"

**Key area of intervention 1.5:** Doctoral and post-doctoral programs in support of research.

Contract nr.: **POSDRU/88/1.5/S/60185** – "INNOVATIVE DOCTORAL STUDIES IN A KNOWLEDGE BASED SOCIETY" Babeş-Bolyai University, Cluj-Napoca, Romania

# CREATIVITY, INNOVATION AND CHANGE IN KNOWLEDGE-BASED ORGANIZATION

**IONESCU Vladimir-Codrin**

*Associate Professor, PhD, Faculty of Business and Administration, University of Bucharest, Romania*

*e-mail: [vladimir-codrin.ionescu@drept.unibuc.ro](mailto:vladimir-codrin.ionescu@drept.unibuc.ro)*

**CORNESCU Viorel**

*Professor, PhD*

*Faculty of Business and Administration, University of Bucharest, Romania,*

*e-mail: [viorel.cornescu@drept.unibuc.ro](mailto:viorel.cornescu@drept.unibuc.ro)*

**DRUICĂ Elena**

*Professor, PhD*

*Faculty of Business and Administration, University of Bucharest, Romania*

*e-mail: [elenadruica@yahoo.com](mailto:elenadruica@yahoo.com)*

**Abstract:** *The innovative- creative potential of an organization is determined by the creative capacity of its members, by its managerial team competency and by certain mechanisms to sustain implementation of new ideas, as well as their transformation in competitive products and services. From the premise that knowledge-based modern organization is permanently connected to changes of business environment, the paper aims to underline the essential role of creativity and innovation in projecting and implementing organizational change programmes. Also, the paper presents possible directions of action recommended to nowadays organizations for the transition to knowledge-based organization stage.*

**Key words:** creativity, innovation, change, knowledge-based organization.

**JEL classification:** D83, D90, M10, M21.

## 1. Introduction

Last decades, society changed in a more alert manner. In Europe and around the world, accelerated implementation of new technologies and expanding globalisation phenomenon determined a radical shift from traditional production and innovation services. Gradually, plants are replaced by creative communities, which use as raw material imagination, the capacity to create and innovate (European Commission, 2010a).

Within new knowledge-based society and economy, immaterial values generate more and more material values, in a context in which consumers are in search of new and stimulating experiences. Capacity to create experiences and social networks is, nowadays, an essential factor of competitiveness.

To maintain competitiveness in a global context of great changes, economically, socially, technologically, culturally and so on, Europe must create the necessary environment for innovation and creativity to develop in the frame of new entrepreneurial culture (Barosso, 2009).

Knowledge – based society and economy presume materialization on a superior level of knowledge, as main component of intellectual asset of a nation. In such a society and economy, knowledge, as result of knowledge process, is main source of national, organizational and individual competitive advantage. Growth of activity's complexity, society computerization, as well as accelerated rhythm of technical changes and technologies need new competencies, as a result of knowledge accumulation, developed by a continuous learning process. Therefore, in knowledge – based society and economy, human resources are permanently involved in learning processes on institutional level (in schools, colleges, universities, academies and so on), as well as on organizational level (in private organization, non profit and public).

American professor Peter F. Drucker appreciated that “knowledge – based society will become, inevitably, more competitive than any known human society, for simple reason that along with increase of information access, lack of performance will no longer have any excuse. There will not be any “poor” countries, though only ignorant countries. Same principle will apply to companies, industries and organizations of all sorts. Actually, it will apply equally with persons.

Famous Romanian scientist, Mihai Drăgănescu, believes that knowledge society, as a new stage of information era, such as informational society, ensures dissemination without precedent of knowledge towards citizens by new means, using with priority the internet, e-book and learning methods by electronic procedures (e-learning). Knowledge society follows expansion and study of scientific knowledge and truth on existence, being the only way to ensure a sustainable society on ecological point of view. Also, such a society will represent a new stage in culture, based on knowledge culture, which involves all sorts of knowledge, including artistic knowledge, literary knowledge and so on (Drăgănescu, 2002).

Knowledge – based society represents a society built on innovation and continuous formation of its members, which are supported by a wide community of researchers, academicians, engineers, reunited in a network of universities, research centres and innovative firms, offering high-tech products and services which use and materialize information (World Science Forum 2009).

## **2. Creativity – innovation – competitiveness. An European perspective**

Creativity and innovation have a fundamental role in increase of organizational competitiveness, including in economic, social and cultural development of a nation. In the context of new society and of new sketched economy, the role and significance of scientific and technological knowledge for economic activities have drastically changed, more persistent and credible being the point of views which support the necessity to redefine, theoretically, the innovation concept itself and frame it in a systemic model, more complex than the traditional one, adequate to the contemporary realities and, on practical level, to bring change in innovation politics linked to new requirements (Iancu, 2006).

The creative – innovative potential of an organization is determined by creative capacity of its members, as well as projection and implementation of new strategies and politics which sustain generation, experimentation and application of new ideas, such as their change into tangible goods (products and services) and intangible goods (know – how).

Creativity represents the ability to see a challenge or an issue into a new light and to find, thus, solutions which by then weren't obvious. Creative people develop a habit in thinking more open and more flexible, anticipate and aim invent thing and new modalities of thinking. Radical creativity can change the world. It could be as practical as creativity applied to day-by-day issues, but has long term effects and does not yield even facing the most unreasonable and utopian hopes (Weston, 2008).

Creativity reunites an unitary ensemble of subjective and objective factors, which lead to product accomplishment by individuals or groups (as the result of a process) original and valuable (Bucurean, 2001).

Creativity implies to have an idea, and innovation to have the method to implement the idea. As a consequence, creativity is essential for innovation.

Promoting creative – innovative activities, European organizations benefit form support nationally and communitarian. Thus, European Union developed states have adopted strategies and politics of creativity and innovation stimulation, which to ensure passage to new economic, social and institutional structures, specifics of society and economy based on knowledge.

On communitarian level, the campaign developed by European Commission in 2009, surnamed “European year of creativity and innovation”, had as main objective promoting several creative and innovative actions in certain sectors of human activities, such as awareness concerning the importance of creativity and innovation for personal, social and economical growth. A key-factor for future economic growth is full development of innovation and creativity potential of European citizens, which are based on European culture and scientific excellence (Council of the European Union, 2008).

Projects developed by the European Commission in the campaign conducted during 2009 have included the following major directions (European Commission, 2009a):

- cooperation between member states in areas such as education, culture, business and employment;
- creating closer bonds between arts, business, schools and universities;
- raising awareness among youth on entrepreneurship;
- development of innovative behaviour in public and private organizations.

Creative thinking is the key to success in a global economy, fact acknowledged by the European Union long ago.

Innovation is an integral part of the European Commission climate change package and its plan to revive the European economy, set in the Europe 2020 strategy.

Today's world is based on rapid innovation. As it moves to a knowledge-based economy, the European Union as a whole and organizations must develop innovative creative potential through greater openness and responsiveness to change.

Danuta Hübner, former Commissioner for Regional Policy states that "due to ever fiercer competition and the important global challenges, innovative practices and creative solutions represent a springboard to economic growth and prosperity of our regions and countries. Skills, ideas, processes: all combine to help us gain a competitive advantage. Europe should not react to the current crisis by reducing investment into skills and innovation. We have to trust and to rely on the quality of our ideas and our ability to adapt."

Creativity is the ultimate source of innovation, transforming creative ideas into products and services.

Creativity and innovation can not lead to sustainable economy without respecting cultural diversity, which is itself a source of creativity and innovation (European Commission, 2009b).

The results of the campaign conducted by the European Commission under the slogan "Imagine. Create. Innovate." were synthesized in the "Manifesto for creativity and innovation in Europe", which gathers seven priority directions of action and is also the support of Community Strategy for creativity and innovation for the period 2010-2020.

European Union maintains by active politics creative-innovative processes, fact emphasized by the Programme of political cohesion for 2007-2013, in which creativity and innovation are appreciated as durable development sources. Thus, over 86 billion Euros, representing 25% structural funds' total, were assigned to Innovation Agenda, which includes research and innovation, ICT exploitation (Information and Communication Technologies), measures for entrepreneurial spirit, such as innovation at workplace.

On what concerns the Initiative "An Union of Innovation", stipulated in Strategy Europe 2020, European Commission will act on following coordinates (European Commission, 2010b)>

- improvement of frame-conditions for allowing enterprises to innovate, creating an unique European brevet and a specific brevet court, modernization of royalty and trademarks protection;
- launching European partnerships on innovation between European Union and national levels, in order to accelerate development and use of necessary technology to answer today's challenges;
- development of the role of communitarian tools of innovation sustainability (i.e. structural funds, funds for rural development, Frame-Programme of research-development, Frame-Programme for competitiveness and innovation, SET plan), including by a tight collaboration with European Bank of Investment;
- promoting partnerships on what concerns knowledge and consolidation of bonds between education, enterprises, research and innovation, including by the European Institute of Innovation and Technology (EIT), such as promotion of entrepreneurial spirit for support of young innovative enterprises.

### **3. Organizational change through creativity and innovation**

Creativity and innovation allow organization to foresee change, to develop new technologies, to create new products, services and operational methods. Modern knowledge-based organization must permanently be connected to changes of the business environment. Thus said, organization based on knowledge is an organization specialized in change which, according to Rosabeth Moss Kanter, professor of management at Harvard Business School, anticipates, creates and reacts efficiently to change (Kanter, 2006).

The creative-innovative behaviour of human resources, such as their implication in organizational change processes must become a way of life. Knowledge-based organization is oriented to future, and managers and entrepreneurs have a proactive strategic view on business approach. Such a managers' and entrepreneurs' vision is reflected on the behaviour of organization's human resources, which must act same involvement in current organizational issues as well as in change projects.

Modern knowledge-based organization is also a learning organization. In such an organization, are developed and grown new thinking models, human resources are permanently engaged in learning for gaining competencies and each experience is an opportunity to learn.

Organizational change covers a series of activities which the firm is prepared to gain competencies necessary to adopt a new management strategy. Hence, successful projection and implementation of an organizational change presume, along with creativity and innovation, new competencies, resulted by accumulation of knowledge, which are acquired by members of an organization through continuous learning.

In our opinion, investment in education and implication of human resources in continuous learning process, represent important coordinates of knowledge-based organization. It is essential that managers, through their strategic vision, to induce employees the need for change and to imprint a pro-change pro-learning attitude. Thus it creates a stimulating organizational climate, dynamic and propitious to reach operational excellence, with beneficial long-term effects within firm competitiveness.

Knowledge-based organization, change oriented, produces three categories of intangible values, useful in initiation and efficient implementation of strategic organizational change:

- concepts (ideas and technologies resulted from creative-innovative activities);
- competence (capacity to satisfy more the exigencies of those who make the request);
- connections (creating some partnerships or strategic alliances in order to expand firms' influence, as well as to value new opportunities in business).

Organizational change presumes modification of organization mission and vision, introducing new technologies, a modern system of performance evaluation, reengineering payment system, orienting towards new target-groups of clients, as well as applying to complex managerial methods such as management through objectives, management through projects, management through budgets, total quality budget and so on (Nica, 2006).

Organizational change corresponds to a new orientation, fundamental and radical, concerning manners organizational undergoing activities, with essential implications on all its members' behaviour. Launching a changing process is being aware of need for change, expressing change desire, accumulation of knowledge such as formation of necessary abilities in change implementation.

A series of authors appreciate that organizational change must be approached as a phenomenon which is the result of interactions between economical, technological, social, political factors which act on the environment.

Variables involved in a process of organizational change are, in our opinion, strategic view, objectives, organizational structure, technologies, organizational culture and management techniques. Lead actors of change, human resources – entrepreneurs, managers and employees – create and implement organizational change project, linking reminded variables and coordinating interactions between them. Most of the organizations, strategic view and objective system are not adequately linked. Entrepreneurs and managers must have the capacity to communicate their employees the strategic vision and enterprise mission. Unfulfilled objectives, inadequate communication between different hierarchical steps, lack of management involvement are obstacles in changing process.

Organizational changing process implies applying systems, methods and managerial techniques which lead to reaching objectives specific to new firm's strategic orientation. Management practice aims the accomplishment of new connections between human resources and organizational activities, such as new rules and principles to govern labour processes within the firm. If employees are not motivated to execute their tasks or do not understand the connection between their objectives and the firm's, a "system incoherence" will appear which imposes analysis and solving in order to bring success to change initiative within the firm (Trahan, W., Burke, W., 1996).

Trinomial "creativity – innovation – change" is, therefore, the fundament of proactive, flexible and innovative management, by which modern, knowledge-based, organization, as an entity of new society and economy, constantly creates competitive advantages reported to competition firms.

#### **4. Recommendations for today's organizations for transition to knowledge-based organizations stage**

In our opinion, action horizons recommended to today's organizations, for transition to the stage of knowledge-based organizations, must subscribe to the following major coordinates:

- practice strategic management on wide scale;
- promoting an organizational climate towards creativity and innovation;
- operationalization of certain politics and programmes for developing human resources;

- creating and developing new evolutionary culture models, towards result and economic performance;
- organizational partnerships implication, along with universities and research institutes.

To be permanently connected to change, organizations must implement an integrated system of strategic management. Implementation opportunity of strategic management is supported, on one side, by growing turbulence of the environment and, on the other side, by multiple advantages this manner of foreseeing management brings (unity of view and actions at every hierarchical level, the demand of certain state of mind governed by interest and openness to new, capacity to detect emergent opportunities and so on).

Practically, strategic management is necessary in every step of the firm's life cycle. In every step – launch, growth, maturity, decline – the organization is confronted with new challenges specific to development stage, and strategic management is a source of competitive advantage on long term.

Our point of view is that organization can choose a procedural strategic management structured on three stages: strategic planning, launch or implementation of strategy and evaluation of strategy. The essential stage of strategic management process, strategic planning, includes three phases: analysis-diagnosis, organizational change and strategy projection. Succession of these phases of strategic planning must be seen in a correlative and interdependent vision, which means strategy is gradually sketched along the analysis – diagnosis and organizational strategic change. In strategy projection phase is finalized, based on information obtained in first two stages of strategic planning, the trajectory taken by the organization in the following period.

Creativity and innovation represent, as shown, two of the important elements which ensure development and success of an organization in a more and more complex competitive environment. The capacity of innovation of an organization is determined by the power of personnel creativity, of managerial team competency and the existence of mechanisms to sustain new ideas implementation, such as their transformation into competitive products and services. Developing creative and innovative power of human resources is realised by recruiting, and their adequate training and permanent improvement.

Today, we appreciate that managers and organization entrepreneurs must fulfil a series of actions, from which we remind: conceive and development of dynamic strategies and politics; creating a favourable organizational climate for creativity, thus human resources will have a higher degree of liberty in thinking, expressing and acting; promoting certain flexible organizational structures; building certain groups between compartments and laboratories for experimenting new ideas; encouraging and supporting human resources to participate to scientific conferences and symposiums, such as fares and expositions; selecting, hiring, motivating and promoting employees with creative spirit; use of methods and techniques of creativity stimulation such as Delphi technique, brainstorming, Delbecq method and so on.

Another action direction recommended for today's organizations has in sight the development of human resources, of which creative-innovative potential is inexhaustible. Human resource produce, accumulate, transfer and disseminate knowledge, which is main source of competitive advantage in today's society. Communitarian states adopted Operation Programmes to establish priority axes and main domains of intervention for human resources, in order to implement financial assistance of European Union through European Social Fund, within Convergence Objective, for programming period 2007-2013.

We appreciate to impose the substantiation and operationalization of new programmes for human resources to target, mainly, on favouring access to education and quality professional formation, promoting entrepreneurial culture, stimulating participation to programmes and continuous formation, supporting organizations and employees in order to grow adaptability to new knowledge-based society challenges and so on. Entrepreneurial – management development programmes, focused on creativity and innovation, show a great importance nowadays. Attending such programmes, entrepreneurs and managers will be aware of the fact that the organizations they manage could become more competitive by a plus of creativity and innovation.

To maintain in operational excellence sphere, organizations must promote evolutionary cultural models, focused on economic results and performance. Such type of evolutionary culture organization is materialized by helping managers to identify change, hence the organization to adapt to the environment and obtain competitive advantages on long term.

Orientation of organizational culture towards economic result and performance is established in tight connection with complex motivation of human resources. Essentially, an evolutionary culture of organization, oriented towards results and economic performance, is based on four main coordinates: accepting necessary changing rhythm; human resources creativity, as a support of change; acting



positively towards the organization, in its ensemble, facing change. Management must adopt politics which have as an inspirational source exceptional results of its employees. Developing such a cultural model supposes that managers and entrepreneurs to respect human resources, to offer them freedom of creation and enough autonomy to excel.

Involvement of partner organization along with universities and research institutes is essential in the context of knowledge-based society and economy. With partnerships, innovative organizations, universities and research institutes have greater chances to win grants and projects and to win funding on national and international forums.

Also, such partnerships create the possibility of accomplishing studies and interdisciplinary research, by participation, for example, of certain universities, institutes, research centres with technical, economical, medical profile and so on. Involvement of private organizations in such projects imprints from the beginning to studies and research a profound applicative dimension.

Dissemination of activity results of scientific research, stipulated in grants and projects programme, is realised by organization of conferences, symposiums and workshops, by editing scientific bulletins, by publishing studies and articles in high impact journals etc.

## 5. Conclusions

Society and economy based on knowledge presume materialization on a higher level of the knowledge capital, as main component of intellectual capital of a nation. For such a society and economy, knowledge, as a result of knowledge process, is a main source of competitive advantage on national, organizational and individual level.

The creative-innovative potential of an organization is determined by the capacity of creation of its members, such as projecting and implementing strategies and politics to sustain generating, experimenting and applying new idea, respectively transforming them in tangible goods (products and services) or intangible (knowledge). Creativity and innovation allow organizations to anticipate change, to develop new technologies, to create new products, services and operational methods.

Creative-innovative behaviour of human-resources, such as their involvement in organizational changing process must become a way of living. Knowledge-based organization is focused on future, and managers and entrepreneurs have a proactive strategic vision in business approach. Such managers and entrepreneurs' vision is reflected on human resources behaviour, which must manifest same implication in today's organizational problems, as well as in changing projects.

Organizational changing process implies application of systems, methods, managerial techniques to lead to reaching objectives of new firm's strategic orientations. Management practice aim to accomplish connection between human resources and organizational activities, such as teaching rules and principles to govern the firm's working processes.

Directions of action recommended to nowadays organization, in order to pass to knowledge-based organization stage, must subscribe to the following major coordinates: practice strategic management on wide scale; promoting an organizational climate towards creativity and innovation; operationalization of certain politics and programmes for developing human resources; creating and developing new evolutionary culture models, towards result and economic performance; organizational partnerships implication, along with universities and research institutes.

## 6. Bibliography

- Barroso (2009) Political Guidelines for the next Commission, Available at
- [http://ec.europa.eu/commission\\_barroso/president/pdf/press\\_20090903\\_EN.pdf](http://ec.europa.eu/commission_barroso/president/pdf/press_20090903_EN.pdf).
- Bucurean, M.(2001), *Management și creativitate în micile afaceri*, Editor Tribuna Economică, București.
- Council of the European Union (2008) *Presidency Conclusions*, Brussels European Council.
- Drăgănescu, M. (2002) *Societatea informațională și a cunoașterii. Vectorii societății cunoașterii*, în Filip, F., Gh.(coord.), *Societatea informațională - Societatea cunoașterii. Concepte, soluții și strategii pentru România*, Academia Română, București.



- European Commission (2009a) Creativity and Innovation - Driving Competitiveness in the Regions, **Info regio Panorama** No. 29, Brussels.
- European Commission (2009b) *Regions For Economic Change - Networking for Results*, Annual Conference, Brussels.
- European Commission (2010a) GREEN PAPER. Unlocking the potential of cultural and creative industries, Brussels.
- European Commission (2010b), *EUROPE 2020. A strategy for smart, sustainable and inclusive growth*, Brussels.
- Iancu, A. (2006), *Cunoaștere și Inovare. O abordare economică*, Editura Academiei Române, București.
- Kanter, R.M. (2006) *Despre frontierele managementului*, Editura Meteor Press, București.
- Nica, P.C., (2006) Managementul schimbării (I), *Revista de Marketing și Comunicare în Afaceri*.
- Trahan, W., Burke, W. (1996) „Creating a change reaction: how understanding organizational dynamics can ease re-engineering”, *National Productivity Review*, vol.15, no.4, p.37-46.
- Weston, A. (2008) *Creativitate în gândirea critică*, Editura ALL, București.
- World Science Forum (2009) **Knowledge and Future, Budapest.**

# THE HUMAN RESOURCES MANAGER - A MODERATOR FACTOR OF THE ORGANIZATIONAL CHANGE

**IORDACHE Loredana**

*Associate lecturer, Faculty of Economics and Business Administration, Department of Management and Marketing, University of Craiova, Craiova, Romania, loredanaordache2006@yahoo.fr*

**CRIVEANU Ion**

*Professor, Faculty of Economics and Business Administration/ Department of Management and Marketing, University of Craiova, Craiova, Romania*

**Abstract:** *The main purpose of this article is to establish the role that the managers of human resources play in the coordination of the organizational change. In this context are analyzed the managers' report regarding the changing factors.*

**Key words:** organizational change, global financial crisis, manager.

**JEL classification:** M12

## 1. Introduction:

The way the change is approached is different from one organization to another, according to several factors such as the type of organization, leadership style, organizational culture, etc. But no matter the approach, one thing is certain: organizational change requires the involvement of people in sustaining it whether we talk about the organizational development, reorganization or the restructuring of the activity.

In this study we analyze the factors that contribute to a successful organizational change in time of the existing crisis and the human resources' manager role in this change. Regarding the analysis and suggestions of this article, the authors were taking into account the approaches of the specialists, developing or shading a series of theoretical and practical aspects.

## 2. The global financial crisis, a triggering factor in the organizational change

Started initially in the U.S., the global financial crisis caused major changes at the level of all world states against the background of strong globalization with effects on the global economic growth but also with political, strategic and social consequences.

Considering the recession and the chaos in the financial system, the organizations, no matter their rank had to reorganize in order to survive.

The crisis has determined a series of changes related to: the changes in the mission and vision of an organization, the use of new technologies in relation to new types of activities, the introduction of a performance evaluation system and pay system reengineering and essential changes in the organizational structure, the orientation to new target groups of customers with other needs and customer behavior, totally different than the one considered before, the introduction of the system of management by objectives and others. Once the crisis started, the words change, transformation, optimization, reorganization or restructuring, have been associated to it.

The management of the organizational change began to be seen more as an indispensable component necessary to the adaptation and survival of the organization on the market. This involves making some essential changes of the organization as a whole. According to the specialists J. Kotter and L. Schlesinger (1979) the management of change focuses on identifying the sources of resistance to change and providing ways of overcoming them. The challenge for managers is, however, not only to identify these sources, but also the way they approach them in order to achieve a successful change.

Several organizations have made successive changes in small periods of time and with a huge impact but they haven't yielded the expected results. Although huge efforts were made the problem that arises is that the objectives we have set with it were not accomplished. This is the unpleasant perspective after the fact when we didn't have a correct approach that becomes now more problematic if we do not have anymore the flexibility to start over – we spent a lot of money, we overworked the people, we have a lot of medium and long term commitments, and the revenue is not where it should be.

This is an unpleasant post factum perspective determined by the fact that those who thought the change did not have a correct approach and the situation is even more delicate as great amounts of money people have been spent, people were overworked, there are plenty of medium and long term commitments long, and revenues are the expected ones.

We believe that in the process of transformation it is necessary for the organization to have a clear image of the changes that have to be made to overcome the crisis. This will serve as a direction for forecasting, planning, diagnostic analysis, decisions for the entire period of the organizational change. The change's trigger may be an opportunity or a form of crisis. In both situations, the way we prepare and implement the change will determine the outcome. When we are in a situation of crisis symptoms appear gradually worsening over time unless we do something. The more we delay, the more difficult is for us to launch our business again. We must not neglect the fact that very often that may cause panic and confusion. At the end of this stage, the team dealing with this change and every manager from the business department that are involved in these changes would have to obtain an objective characterization of the causes of the crisis and a clear vision of how to deal with it.

The future of the organization should be based on understanding the crisis and its current status. Moreover, the vision must be supported by a strategic plan that focuses on the organizational objectives designed to counteract the crisis. Given the fact that the inability to adapt is at the bottom of many organizational crises, adaptability is an essential element at the structure of the future company.

## **2.1. The role of the Human Resources manager in the organizational change**

Over the years the role of the Human Resources manager has changed, moving from the administrative part to the recruitment and training ones, and ending with the strategy for the organization. With all these transformations, until the beginning of the crisis, the role of the Human Resources department, including the Human Resources manager, was in a few cases seen as a strategic partner in an organization. For years, the Human Resources Department was seen only as a "support" for the rest of the management team. The crisis was a good time for the Human Resources specialists to demonstrate the benefit they can add to the company.

The value that a Human Resources manager can bring inside an organization is based on his professional experience, of his leadership skills, and on the existence of circumstances, may them be favorable or not. Its inclusion as a strategic partner in the process of taking decisions, in the establishment of the strategies and objectives of the organization can bring great benefits to the organization because an active understanding and participation in the organization's strategy can help us make the right decision regarding the most valuable resource an organization has: the human resource. To see the role of the human resources manager and Human Resources Department, especially during the crisis, just as a lever of action in relation to the employees, is a huge mistake that, unfortunately, many organizations do. The human resources manager with the entire management team needs to focus and work together proactively in order to manage these changes to the employees. Therefore, we believe that before announcing the changes we need some time to identify the individual and group areas of resistance to know how to deal with the change. Most of the time, the changes in time of crisis were based on financial issues, that is why changes took place quickly without following the necessary steps required in these situations.

Not few were the situations in which instead of getting the foreshadowed results the companies found themselves in the position to report large losses of financial or human nature by restructuring the staff.

One of the models developed and successfully applied in the organizational change is the systemic pattern developed by Harold Resnick (2012). The author provides a wide, but easy to identify way of the starting point that guides the change process.

The pattern developed by Harold Resnick (2012) is based on two components:

- the vision which must be sufficiently wide to provide support and guidance to any employee of the organization. The vision of an organization is a future image, which also gives strategic direction. A good vision is that when all organization members identify their interests and find their motivation to transpose it into reality.
- the market that the organization serves and the customers' requirements. In most of the cases the change is determined by the internal factors but this change must be based on the market analysis where the company was developed, on the future potential and last but not least on customer's satisfaction.

Around the two components, the four parts of the organization that make it up and which have a relationship of interdependence are outlined:

- a) The organizational structure that shows how the organization presents itself, also defining the functional relationships and skills within departments and key positions.
- b) The working processes which describe the activities that are performed on every department within the organization. Generally, the large companies describe these work processes or activities basing upon the standardized procedures that give greater transparency and understanding of the activity.
- c) Humans are the most important resource of the organization. This means that they must find a place in the organization according to their skills, aptitudes and abilities.
- d) The instruments are the physical facilities and the equipments - hardware and software systems, management and reporting systems, written documents such as policies, procedures and manuals, and compensation tools.

Analyzing the system components it results that the Human Resources manager should identify the variables of processes and systems he is responsible for, so that the infrastructure and company culture to better support the change, the performance, the energy and employees' confidence. Also, in order to mitigate the impact of change is necessary for the Human Resources managers to have an evaluation of the skills of all employees in order to use more efficiently the human resources in this difficult process. The change will mainly affect the roles, behaviors and values of the employees.

The Human Resources manager will have to provide support to the employees engaged in change, on the one hand, and on the other hand to the management team involved in the process. He will play an important role of mediator between the board committee and the employees of the organization, given the fact that he will be involved, from the beginning, in these changes.

## **2.2. Communication and employees' training - tools of the Human Resources manager in the organizational change**

Although all experts agree with the necessity of communication strategies within the organizations, often, in practice, few of them have a particular strategy especially in the case of organizational changes.

Nicolae T. and other authors (2006) define the organizational communication as a process through which messages are exchanged, in order to achieve individual and common goals of its members.

Changing the environment in which the organization works, entails redesigning the internal activity, introduction of new strategies, together with the corresponding set of communication relationships and the design of a new organizational culture. In all cases, no matter the hierarchical level, restructuring the organization is perceived by the managers and employees as a factor of stress and frustration. It is difficult and especially hard to explain to the employees that the restructuring is by no means synonymous with penalty or dismissal but that it is a normal process of adaptation to the environment necessary for the survival of the organization. Both the formal and informal communication should highlight that the change is good not only for the organization but also for the employees. If this message is transmitted and perceived in this form the result will be stress reduction, the acceptance and support for workers in applying the proposed strategies, relaxing of the work environment and last but not least sending messages to the outside.

Once a transformation strategy is developed, the organization can assess the costs and benefits of planned actions. Certainly, the benefits of the individually transformation efforts have to exceed the estimated cost. So the concentrated efforts involved in this change will prove to be a real failure. This is the reason why we share our opinions to experts according to which in the organizational change we should involve the employees too.

According to C. Handy (1993) negotiation in the organizational change can be accomplished in two ways:

- a) Organization of the internal environment to prevent degeneration of competition in conflict.

For any organization, knowledge and the environment analysis and its operating mechanism, is the starting point to identify the opportunities, but also the dangers, the threats that may appear in the horizon. Therefore, it is necessary, to have knowledge upon the content and the environmental requirements, quantitative as well as qualitative changes that occur in its area, even the anticipation on the future evolution of the environment so that the organization can adapt to his new structure. Knowing the characteristics and changes in the structure of the environment is a fundamental condition in the development of strategies of the organizational changes. It is also necessary to determine which are the

overriding factors contributing to the adoption and implementation of the decisions and actions as an expression of present and future needs and opportunities.

b) Conflict control

The resize of the organizations, the changes in the operational procedures are internal changes experienced by most organizations during the crisis. Reorganizations and the change of the size of the organization can lead to chaos, threatening the job security of everyone. Conflict resolution depends, largely, on the managers strategic options.

The human dimension of the organizational change is fundamental, because people in the organization are those whose behavior eventually determines what organizational changes can be made and the real profits that will result from them. It happens this way because organizations are, above all, human systems. It is important to admit it and act according to it, because this requirement in an organization refers to everyone, starting with its manager. Those who want their subordinates and colleagues to change must be ready to analyze and change their own behavior, working methods and their own attitudes.

Changing the environment in which the organization is operating entails redesigning the internal work, introducing new strategies, together with the corresponding set of relations of communication and the designation of a new organizational culture. The organizational change corresponds to a new orientation, fundamental and radical, regarding the ways in which the organization will carry on its business, having critical implications on the behavior of all components of an organization, from the general manager to the executive staff.

Depending on how much they are affected by the crisis, companies turn to solutions such as:

- Freezing or reducing salaries;
- No more granting of the bonuses;
- Stopping the business activity for a period of time;
- Restructuring etc.

All these are bad news for employees and the Human Resources Department must know how to minimize the negative effect these management measures have on the staff. In this context, the communication of the organizational changes occurring on the fond of crisis becomes priority but the lack of communication leads to the development of informal communication channels on which will begin to circulate information that trigger panic, an important fact, leading to repercussions on the work. For these situations to be reduced it is necessary to transmit relevant and accurate information about the changes taking place in the organization. Moreover it is necessary for the message to insist on the idea that that change is necessary in this context and to be argued with concrete information. If the message is well sent it will lead to ease tensions and to accept situations without resisting the change. In order to ensure high efficiency in transmitting messages, it is useful to consider the following steps:

a) Establishing the place and time when communication is performed. Therefore it is necessary to prepare the organizational environment for the introduction of changes and not just move to implement these changes.

b) The careful planning of the communication and the coordination of the internal processes of communication to avoid duplication of messages and confusion. Therefore it is necessary for the communication to be made by a person able to answer all questions related to this issue.

c) Different approaches are necessary taking into consideration the people in the organization we are addressing too, to ensure maximum communication impact. The question is who do we address too? The employees directly affected, the employees indirectly affected, overall organization, partners, customers and the public?

d) Most organizations find enough the changing of communication but we think it is necessary that we should monitor and communicate even the impact on employees and how they respond to messages.

People have to understand, to want and to be able to implement changes that at first glance may appear as purely technological or structural, but that will affect them, in fact, in one way or another. In the process of adaptation to organizational change people must change themselves: they must acquire new knowledge, absorb more information, tackle new tasks, improve their level of competence and very often change their work habits, values and attitudes towards the working mode inside the organizations. The change of values and attitudes is essential. It is probably that there can't be any real change without a change of attitude. We don't have to expect that once people have established these changes they will immediately become the changing factors, but communication and the permanent involvement in the process of changing, explanation of each stage of change and consistent support of these changes can lead to the expected results. The change must also be uniform, and once the exceptions occur, they must be

explained as such, or otherwise they will create confusion. Unfortunately most of these companies in which major changes occur, often have to face common obstacles: a structural change in the changing of the organizational design is accompanied by a redefinition of roles, functions, or restructuring, but the "human and social" dimension of the organization is rarely taken into account in managing the change.

The change should not be imposed as it happens in most cases, even if we are talking of less pleasant consequences. This way the trust and system of values that the employees of the organization have formed will be permanently destroyed and we cannot expect, in the future, to rely on their loyalty anymore. Those who remain in the organization after all these changes will always remember how they made these changes and will never trust management again.

Generally, managers focus more on the idea of change and expected result and less on the implementation of the process itself. Therefore we consider it as being necessary, the permanent feedback coming from the employees and we even encourage them to come up with concrete proposals to improve the process of change.

### **3. Conclusions**

Recently, especially due to economic crisis, managers have tried different approaches in order to maintain organizations on the market. Now we naturally wonder which is still the key to success and how did they overcome some of the specific critical stages of change? We do not believe that there can be general solutions available but it is important that solving specific conflicts or tensions in this process to be approached through the light of communication and mutual understanding and not by imposing force. The tense situation may be absent if the change is prepared in time and specific stages of this process are respected. Also, the success of the change depends on sustaining it, on the ability of managers to control every step in the process of change and not to turn back to the past. The employees' confidence in managers who ensure the change is an important factor not only in supporting the change but in annihilation of sources resisting to it. Fairness, respect to the employees, treating them as partners of change are just some of the aspects that managers need to take into account when making the change. Using the personal example of managers, their degree of involvement in changing, their concrete way of deciding, to organize, to act will be acquired by everyone according to the perception created more or less by the participants to change.

To overcome these moments related to the change, we believe that at every level of the organization, managers must have the necessary knowledge in order to achieve a constantly change. It is also necessary to meet the execution staff, in order to cross these difficult times. They are required a different mindset, a different system of values. Everything that was normal before is now undesirable, inappropriate or unacceptable.

Among the factors leading to the failure of the organizational change we enumerate:

- a) the lack of real diagnosis of the organization leading to the identification of a false problem and therefore to the establishing of erroneous measures to action;
- b) the lack of a clear and simple vision that can be understood by all participants involved in the process of change;
- c) the change of strategy during the process of change without reviewing the given situation in that moment;
- d) the employees' resistance to change because of their lack of communication and training;
- e) the lack of control on all the execution phases of the process of change and post change
- f) the return to the old system;
- g) the economic and financial analysis at the time of change and the lack of forecasts after the change.

There are no universal recipes when it comes to the organizational change. Although several authors have developed models and identified the underlying principles of the management change, in practice the organizational change is mainly determined by a number of aspects related to the organization's size, industry, the type of management of the organization and last but not least, the ownership of the organization.

More and more authors agree on the fact that the performance of an organization depends on the teamwork. Teamwork is essential to achieve outstanding results as well as project management. But in order to constantly achieve these results it is necessary for the manager, to be able to form, lead and motivate a team where each teammate should give the best of them. This must be valid for the organizational change as well.

#### 4. References

- Burdus, E.; Caprescu, G. ; Andronicescu, A. (2008) *The management of organizational change*. Bucuresti: Economica
- Newton, R. (2004) *The management of the step-by-step change*. Bucuresti: ALL
- Niculae, T.; Gherghita, I.; Gherghita, D. (2006) *The organizational communication and the management of crisis*. Bucuresti: Ministry of Interior, p. 22
- Handy, C. (1993) *Understanding Organization*, Penguin Book, Ltd.
- Resnick, H.S. Organizational change. Available at [www.worksystems.com/services/organizational\\_change.html](http://www.worksystems.com/services/organizational_change.html)
- [www.change-management.com/tutorial-change-process-detailed.html](http://www.change-management.com/tutorial-change-process-detailed.html)

# THE WORKING CONDITIONS OF HIGHLY QUALIFIED EMPLOYEES IN ROMANIA AND HUNGARY, ACCORDING TO SOME EXPERTS FROM THE TWO COUNTRIES, IN THE CURRENT ECONOMIC CRISIS

**LEOVARIDIS Cristina**

*assistant professor Ph.D., Faculty of Communications and Public Relations,  
National School of Political and Administrative Studies, Bucharest, Romania, leovaridis@yahoo.com*

**Abstract:** This paper aims to identify and comparatively analyze the main features of the working conditions of highly skilled employees in Hungary and Romania, with emphasis on employees' complaints during the economic crisis, in the opinion of experts in areas of working conditions, labour protection, organizational consultancy etc. in Romania and Hungary. The empirical research was based on in-depth interviews conducted face to face with experts. *It feels in both countries the lack of legislation on improving quality of life for high-skilled employees. In both countries, professionals' complaints vary by type of property and business capital source.*

**Key words:** high-skilled employees, working conditions, quality of life for employees, economic crisis.

**JEL classification:** J28, J24.

## 1. Introduction

The interest in improving quality of life for employees is, theoretically speaking, a part of the larger issue of the social dimension of sustainable development, which includes a democratization of relationships inside organizations, the latter not just being limited to merely giving autonomy and consulting with employees before making top decisions, but also referring to centring the interests of organization on the individual/employee (Leovaridis, 2010). The new type of management begins by changing its vision on and attitude towards the individual. It does not simply refer to using the individual more as a means, but it focuses on approaching the individual as a goal in itself, the supreme goal, and attempts to see what can and should the organization do in order to help the individual achieve human accomplishment throughout his work (Hoffman, 2004). Today, perhaps more than ever, it is necessary to discuss about the human mission of organizations, and the manner in which they are projected and capitalized, as not just creations of the individuals, but also as tools of satisfaction for the same individual. The European Union highlighted a new vision of the company as a social actor bearing responsibilities, not only to generate profit for its investors and stakeholders, but also to produce welfare for the society as a whole, by creating "more and better" jobs. It is in this context that the interest for employee life quality is a central feature of the EU policies regarding workforce, especially in the current economic crisis, which led first to increased unemployment, and on the other hand in some cases to worsening working conditions of employees left in organizations after the dismissal of some of their colleagues. Mats Alvesson and Hugh Willmott (2003) mention the necessity of a theoretical approach of organizations from a critical, deconstructivist perspective, in order to develop a less managerial position, to democratize relations inside an organization – all these could allow the consideration of the interests of *silent* groups (employees), unrepresented in the corporate decision-making process. These groups have other ideals rather than an efficient use of resources in order to achieve economic goals – their interests include aspects of work quality, gender equality, workplace democracy etc. (Alvesson, Deetz, 2000).

The quality of working conditions became the central focus of the European social model, as its development is centred on multiple dimensions, intended to lead to a balance between flexibility and security, particularly to work satisfaction generated by salary levels, safety at workplace and flexible arrangements regarding working time. Researches performed by the European Foundation for the Improvement of Life and Work Conditions showed that most Europeans, despite their countries of origin, have similar ideas on what life quality means – one of the most important factors is ensuring health and safety at workplace (Eurofound, 2004). In July 2008, the European Council offered member states several directions concerning issues of safety at work (European Council, 2008) of which we mention the recommendation of formulating policies based on the flexibility of labour markets, activity organization and workplace relations, harmonising professional life with private life, as well as workplace safety and social protection. "Europe 2020. A European strategy for intelligent, ecologic and inclusion favourable growth" (European Commission, 2010) mentions indirectly the important role that improving working



conditions has on improving social inclusion: “an inclusion favourable to growth demands ensuring citizens’ autonomy by higher rates of employment, investing in developing competences, combating poverty, modernizing labour markets and social protection and instruction systems in order to help citizens anticipate and administer change, as well as for building a united society”.

In the literature, many authors insist on the term “knowledge economy”, on the central role of knowledge in production and competition. More important than the knowledge contained in equipment, is the knowledge of the employees’ mind, shared and developed by them, which are the engine of the new type of economy (Mehaut, 2008). Regarding the new trends of economic development, some researchers propose to use the term “learning economy” instead of widespread general “knowledge-based economy” (Nielsen, Lundvall, 2007). Therefore there is a great interest is for competitive advantage that knowledge held by high-skilled employees (knowledge workers) can provide to organizations, and hence the concern for life quality of high-skilled employees.

A new strategy has been elaborated in 2007 – “The Community Strategy on health and security at work”. It was issued for the years 2007-2012 and brings center-stage several changes occurred in the nature of risks: some types of professional illnesses tend to develop (muscular and bone disorders, infections and other disturbances caused by psychological pressures); the nature of professional risks changes, in the context of the development of new risk factors (workplace violence, including moral and sexual harassment, dependences) and labour transformation (a more fragmented professional life). At present, issues connected with poor mental health are the fourth most common cause of work incapacity, and the World Health Organization estimates that by 2020 depression shall be main cause of work incapacity. Recent research on work conditions at European level pointed out an increasing tendency of psychological disturbances, which could be the root of workplace health problems, especially for employees involved in non-manual occupations (European Commission, 2007). Organizational changes including also the changes in work organization (especially more flexible manners of work schedules, including teleworking, but followed by the obligation to achieve specific results up to fixed time limits) have a great impact on quality of workplace current conditions. Nowadays, the most common professional risks and illnesses are stress, depression, anxiety, workplace violence, harassment and intimidation – these are responsible for 18% of work-related health problems, a quarter of them leading to two or even more weeks of work absence. These issues are twice more common at highly qualified employees from the fields of education, healthcare and social services. They are connected with being exposed to factors generating stress such as long working time and difficult hierarchic relations (Leovaridis, 2011).

## **2. The research methodology**

Empirical research was based on a technique belonging to qualitative research: *face to face in-depth interviews* conducted with a 21 experts (11 Romanian experts and 10 Hungarian experts) in areas of labour market and labor laws, working conditions and labor protection, organizational consulting and analysis, from our country and Hungary, more precisely from Bucharest and Budapest.

The reason we used especially qualitative research, which is descriptive and exploratory at the same time, is the very nature of the problem investigated: only such a method could help us to get details of a phenomenon as complex as quality of life of high-skilled workers. As *technique* associated to this method, it was used the *semi-structured interview*, which is centered (focused) on subjects' perspective on the issue discussed, offering the possibility of an in-depth, complex interpretation of the phenomenon, being able to identify even new research directions that were not initially considered by the researcher. Being approached a very recent perspective (in our case, the quality of employees’ life) on a social segment too little discussed in organizational studies (high-qualified workers in sectors specific of the knowledge society), semi-structured interview was even recommended, because it offers a high degree of freedom to explore the phenomenon in all its aspects; although the topic of discussion is established before, questions and their sequence are not predetermined – we used an interview guide comprising few directions for discussion.

The *aim* of conducted research was the comparative study of the working conditions of high-skilled workers from Romania and Hungary, in areas specific for the knowledge society (IT&C, high-tech, education, research, cultural, financial, consulting, media, advertising and other knowledge-intensive services etc.), as they appear in the opinion of experts in the field. *Research objectives* were: a) reviewing the unfavorable aspects of the current general situation of the labor market, during economic crisis; b) identification of the main complaints of high-skilled employees about their workplace, including the comparison between private and public sector, between large, multinationals firms and small and

medium enterprises with domestic capital, between different economic sectors, with emphasis on changes occurring during economic crisis; c) identification of good practice examples regarding the influence at the macro level, of the labor legislation and official policies or strategies in working conditions area; d) identification of good practice examples at the micro level, regarding the impact of management style or bipartite social dialogue or human resources management or organizational culture etc., on improving the quality of life for employees with intellectual occupations in sectors specific for the knowledge society; e) identification of the existence in the legislation or current strategies of some measures and/or special rules to prevent new types of occupational diseases specific to non-manual occupations, such as eye and headaches, stress, depression, back pain etc.; f) studying the forms of protest used by non-manual employees compared to other types of employees, as well as those they can access, comparatively between highly qualified employees from the multinational companies and those from Romanian / Hungarian companies, used especially during economic crisis.

*The analyzed collectivity* consisted of experts in the fields of labour market, working conditions and labor protection in Bucharest and Budapest. Research sample was composed of 21 such experts, 11 from Bucharest and 10 from Budapest. Subjects who responded to our field interviews were primarily scientists and academics (from academic institutes of sociology or economics, from state or private universities in Bucharest and Budapest that have conducted research, published papers or teach courses in areas of organizational health, labor, sociology of organizations - 5 from Romania and 7 from Hungary), researchers from the national institutes of labor and labor protection (2 from Romania), human resource managers in multinational companies and private consultants in the diagnosis and organizational development that provides consulting and training sessions to companies on health and safety at work (2 from Romania and 1 from Hungary), leaders of trade unions in specific sectors of the knowledge society (2 from Romania and 2 from Hungary). I opted for them, because of experience and expertise they have in this domain, that makes them aware of all aspects of our research subjects, and may thus give us pertinent data. I opted for such different areas of expertise of respondents, because based on their opinions, to have a more complete overview of the subject studied.

Qualitative research based on in-depth interviews with semi-structured interview guide are characterized by the fact that the sample is small and unrepresentative statistically. The sample was made by two methods: first, the one used for most interviews, namely those with academic experts (researchers or academics) involved visiting several websites of research institutes, faculties with profile closed to our theme from several universities in Bucharest and Budapest, state or private, where we have studied the research programs of the departments, the curricula on years of study and CVs and presentation of all researchers and teachers to identify professionals with expertise on our theme. After applying the first method to identify potential respondents, most of those contacted by e-mail for an appointment to interview have not responded or have refused on the grounds that the interview subject is outside their current expertise. The second method, used less, was based on the recommendations, for interviews with leaders of trade union federations or private consultants in the field of occupational health and organizational development.

Interviews with Hungarians experts in Budapest took place during September-October 2011, and with the Romanian experts in the period November to December 2011; every interview lasted about 60 minutes. The conclusions drawn from empirical research will be supported by quotations from respondents to the interviews.

### **3. The research results**

Given the intended purpose, research results have facilitated comparative study of working conditions of high-skilled workers from Romania and Hungary, in areas specific for the knowledge society, as they appear in the opinion of experts in the field, by identifying the main complaints related to workplace of highly qualified employees, including comparison between private and public sector, between large, multinationals companies and small and medium enterprises with domestic capital and between different economic sectors, especially during the current economic crisis.

#### **3.1. Negative aspects on the general situation of the labor market and working conditions in the two countries, during the current economic crisis**

According to the responses of Romanian experts interviewed, the most important problems that currently exist in the labour market in Romania, in general and in particular on working conditions, during the economic crisis, are: lack of jobs and wages very low compared to prices (which causes many people in rural areas or small towns to emigrate to work in countries such as Italy, Spain etc.), job

insecurity, under-employment in terms of skills, qualifications; low capacity of the economy to absorb high-skilled workforce; highly rigid mechanisms for maintaining older people over 45 years on the labour market; blocks in the labour market entry of young people.

In regard to working conditions, were identified two categories of negative aspects, some specific to non-manual occupations in the industry and construction, and others specific to non-manual occupations in services: 1. use of old technology, which leads to work accidents, harmful environmental factors (emissions, noise, temperatures too high or too low, great exercise etc.) that cause occupational diseases in industry and construction, eliminating the law which allowed the retirement at 40-50 years for those working in special conditions (military, fire, metallurgy, mining, nuclear, oil extraction, aviation), and 2. lack of legal framework on work ergonomics and psychological health of employees, long working time and lack of work-life balance especially during the current economic crisis, the effects of intense cognitive activities on the body (accelerated aging processes of the brain, high degree of cognitive isolation, poor interpersonal relationships) are not taken into account, for employees with non-manual occupations:

- “Although many companies were privatized, their employees still work with old technology, so with the risk of work accidents. Harmful environmental factors in construction and industry (e.g. emissions, noise, temperatures too high or too low, great exercise etc.) influences the employees’ health and cause occupational diseases”.

- “During communism, according the law, those working in special conditions of work, from the group I of work were retired at 40-50 years. Currently, based on the G.D. 1058/2003, it decided the expertise of jobs in these industries (to assess whether there are still difficult working conditions, because in these sectors they want to increase the retirement age), but only in those companies that applied for this expertise (firms have made these requests together with the unions), thus many of the firms with difficult working conditions in construction or industry remained unexpertised. Employees in these sectors should retire earlier than others because they have very high risk of death before 60 years”.

- “Lack of a structured legal framework applicable to all sectors covering issues related to work ergonomics (ergonomics of workplace, of climatic conditions, of labour instruments), psychological health of employees (especially occupational wellbeing and occupational stress)”.

- “Workloads is not accompanied by clarification of tasks, duties and responsibilities of the post; daily and weekly rest are reduced more than ever during the economic crisis; there is not protection in the event of layoffs due to economic problems of the company during the crisis: there are weak mechanisms for informing employees about the economic performance of the company where they work; in organizations there are no mechanisms of reconciliation of family life and work, so it is necessary to support people who take care of children, elderly or disabled people etc.”.

In Hungary, as in Romania, the labour market face the same difficulties during the current economic crisis, as insufficient jobs (so many people go to work in other countries such as Germany and Austria), low wages, job insecurity, but unlike Romania it is mentioned the new labour code, which “will favors employers, opening the way to abuses that will affect more than ever before the quality of employees’ life” (although in Romania in May 2011 was adopted a labour code with the same potential negative consequences on employees).

### **3.2. Highly qualified employees’ complaints, differences between public and private sector, between multinational companies and ones with domestic capital, between different economic sectors in both countries, during economic crisis**

Despite the fact that experts are from different areas (some from state academic, others from production, the private sector), there is a highly qualified employees’ dissatisfaction in the current crisis period (whether in the private sector, whether in public sector employees) mentioned by all experts, namely tasks overload, overwork, mainly because the employees remaining after the disposal of others had to take over their responsibilities, while being under the pressure that if they do not meet them, their will lose their job.

In addition, there are other specific complaints, depending on the source of capital, i.e. private or public. Thus, some *high-skilled employees in the private sector especially from international companies*, in specific areas for the knowledge society (IT&C, high-tech, financial, consulting, media, advertising etc.) are dissatisfied with lower budgets and implicitly of employers’ investment in the professional development of employees, dismissals, job insecurity, restrictive rules imposed by the parent company, in this crisis period:

- “reduction in the number of training courses due to the economic crisis”;

- “private sector was more affected by cuts in personnel and thus to increase the workload and responsibilities for those remaining”;
- “the feeling of job insecurity”;
- “the existence of drastic rules taken from the parent company and imposed in subsidiaries (because often employees do not want to learn the rules - *so far I worked so all my life and now you come to teach me how to do ...*); in multinationals, if employees do not follow the rules, are dismissed immediately, while in state firms still it considered *it goes so*”.

Other complaints are also mentioned: lack of communication between superiors and subordinates, not considering the health risks of working with PC in the office, stress generated by limited time for solving tasks, low-wages for “knowledge workers”, the last two are accentuated in the crisis period: “the work in jumps is practiced, in style “hey-rup” and “non-stop”, because “different” causes, i.e. that “the client asked now” / “the customer is the king” / “the customer should not be discontent”, and these “temporary” acceleration of pace become permanent (“if you don’t agree, there are others waiting to take your place!”), “you do not agree - you are free to go!”); “they are trying to solve problems with increasingly less employees - to the brink of affordability, one of the consequences is that, usually, the normal 8 hour program is not respected, program that is typically exceeded”; “is not given the right importance to physical working conditions (there are cases when in offices there are too many people in a room with crowded desks, they don’t have enough air but they are not aware of the lack of fresh air and thus reach discomfort and illnesses”.

In Hungary, as in Romania, is priority mentioned as complaint of highly qualified employees, in the present economic crisis period, the lack of work-life balance (high labour intensity and the large number of working hours). In addition, we identify in multinationals, according to experts, other employees’ problems, such as: the imposition from the parent firm of organizational culture and requirements from there, inadequate to local specificity; lower wages on the same positions in subsidiaries compared to the parent company; unpaid overtime; lack of freedom of creation and innovation; taylorian management system based on authority; lack of promotion prospects; job insecurity due to limited periods of employment for young professionals; the tense, stressful, atmosphere, based on competition between colleagues:

- “market inequalities between demand and support for talented employees, who must adapt to very strict requirements and organizational culture of multinational firms”;
- “very challenging to adapt these employees to Western standards, especially in banking or IT&C, where these employees need to learn rationality, precision, work discipline, strict standards imposed by the parent company management, including through training courses, thus losing the creativity and innovation”;
- “salaries are lower than those of employees with the same education and the same positions in the parent companies”;
- “number of working hours is much higher than in the headquarters”;
- “lack of work-life balance for employees in private foreign-owned firms”;
- “the pay for overtime is required, request found particularly for the staff in multinationals, which often use overtime, these requests were met with similar frequency in both industry and services”;
- “multi-level hierarchies in multinationals, taylorian management system”;
- “lack of autonomy to innovate”;
- “lack of opportunities to promote - the promotion is not for professional reasons, but the coincidences, power relations, interpersonal relations. In large and medium companies, in words, the promotion is done by well-established rules, procedures of human resources department, but which in practice are applied arbitrarily”;
- “employment for limited periods, not exceeding 6 months or 1 year, and if the employee fails to demonstrate that he is competitive, the contract does not continues after this”;
- “firms want to obtain fast and maximum profit from short-term employment, employment is uncertain”;
- “in terms of management style and organizational environment of multinational companies, the atmosphere is more tense, stressful, competitive between colleagues etc., because their managers are also pressured by parent companies to obtain profit, this is their main purpose, which often can lead to heart attacks, diseases for employees: it is very hard to retire from these companies, managers do not take staff positions over 40-45 years because they become too expensive, demanding higher wages, and especially because they can not manage stress anymore, beginning to have health problems; in turn, they hire graduate students, whom they train in the light of the organizational culture of the company, using their

enthusiasm and overload resistance because of good health they have, they are drawn into these positions because they receive higher salaries than in SMEs. Currently, the service sector flourished and remained in Western Europe, and production was moved to the East, and later in Asia, which is considerably cheaper by multinationals from developed European countries”.

Most Hungarian experts emphasize the lack of autonomy and freedom to innovate in Hungarian subsidiaries of multinationals firms. From surveys conducted by some of them, it was found that the Hungarian employees trying to delay implementation of these standards and rules, in order to have freedom of creation and innovation. A characteristic of multinationals is that they do not set “(not allow) research departments in the subsidiaries of Central and Eastern European, they remain in the parent companies; this displeases highly trained staff here, who want to innovate, and for that should avoid the rules. Engineers, educated employees are underestimated in many multinationals, their knowledge is not used enough. Although those from West know that the creative industries need a leadership style based on autonomy, democratic, it applies only in the mother country, where freedom of thought and autonomy is given to employees, but not in daughter companies”

Possible explanation for this phenomenon, from the perspective of these surveys authors, is that in daughter countries, these firms need dependent, disciplined people; Western management have prejudices regarding local employees, due to socialist culture which the latter were educated (including corruption, bureaucracy), and therefore they consider necessary to discipline them, lacking confidence in their intellectual capacities; experts interviewed considered that „it takes time, for another generation, to change this wrong perception on employees from the former communist countries”.

Among the specific complaints of *highly qualified employees from the public sector* in our country (health, education, research, social assistance), we mention, according to opinions of the experts interviewed: low wages, especially after reductions in the crisis period, disproportionate to the effort, which determined in many cases of young professionals leaving the country (particularly from research and higher education), job insecurity, lack of promotion and professional development, lack of infrastructure (research laboratories), which is causing some respondents to find that in Romanian capital firms in the private sector where they have expertised, the working conditions are better than those in state firms:

- “public sector has been affected rather by the reduction of wages and therefore lower general living conditions of workers both high-skilled employees and all employees in this sector in general”;
- “many young researchers and young academics leaving the country, because here they have no chance: those who are committed and really want to do something are discouraged”;
- “in addition to very low wages, other complaints of high-skilled employees, especially the younger ones, are no opportunities for promotion and professional development”;
- “lack of infrastructure (tools and equipment, research equipment for high research)”;
- “jobs are unsafe – a lot of young researchers have lost their jobs due to privatization and subsequent dissolution of several research institutes or joining institutes at universities and their transformation in research centers (if in 1989 170,000 employees worked in research, of which about 60,000 certified researchers, now there are only 15,000 employees of which about 6,000 are certified, in the 66 budget institutes of the Romanian Academy or extra-budgetary national research institutes, which are self-financing from projects”.

In Hungary, the difficulties faced by high-skilled employees in the budgetary system, in the crisis period, are similar to those in our country: very low wages compared with the intensity of their work, lack of career prospects, lack of job security:

- “Low wages, an intensive activity”;
- “high intensity work is a feature in academia (university professors are now overload, have to teach too many courses, must go to a number of conferences per year, to publish books and articles, to win and to work on research projects etc., even an university colleague died suddenly of a heart attack caused also by overload)”;
- “large number of working hours and overloading we can find at the doctors, in the medical system, so there is a great migration of physicians from Hungary to England, Austria and Germany. But there is no so much intensity of work for intellectual occupations employees in government institutions, ministries, central and local authorities”;
- “lack of career prospects, lack of job security, so high-skilled employees often have more jobs at the state for short periods, then go to private sector”.

In regard to working conditions in private companies in our country, comparing foreign with Romanian firms, things are different: “in Romanian capital SMEs, employees complaints during the

economic crisis are related to the lack of capital, difficult access to capital; huge dependence on market - with extreme variations / dependence on the demand designed by multinational companies; while in the large, multinational, complaints are related to: job instability, capping career development in the multinationals, high specialization in narrow areas“.

With regard to differences in quality of life for *highly qualified employees in different sectors*, some respondents stated that if industry and construction there are generally physical risks related to emissions, noise, high temperature etc., in the services appear also risks of professional diseases related to interpersonal relationships or work pace, “that’s why the evaluation of these posts must include in addition to the physical environment, the whole work system”. And among the services sector, there are less dissatisfied high-skilled employees: “the most advantaged were those in IT&C and outsourcing, areas that have been little or not affected by the economic crisis”.

### **3.3. Examples of good practice at the macro level, regarding laws and strategies in the field and at the micro level, in various organizations**

Most Romanian experts interviewed, although from different sectors, have similar views, showing their disappointment at the lack of specific and effective concerns at macro level, to improve the working conditions of high-skilled employees, the official regulations in force regarding only the risks and physical safety at work for employees with non-manual occupations:

- “in terms of examples of good practice and influence of official strategies in working conditions, all studies done in the institute where I work concern only working conditions in industry and construction; Law 319/2006 on health and safety at work and all provisions of the European Commission on this subject, which were translated into government decisions, were made as if there are only industry in Romania”;

- “all the training organized in our institutions for those who assess the working conditions aimed only working conditions in industry, only recently I heard about a course that cover working conditions in health”;

- “at macro level, I could not mention some policies, because I believe that we do not have such policies”;

- “according to GD 425/2006 and 955/2010, in all public and private companies with more than 9 employees, from any economic sector, there is a department of prevention and work protection, number of employees in this service is proportional to the number of employees of the company. The legislation obliges employers to create this department, which shall have the responsibilities: risk assessment and formulation of preventive measures. If these departments have some visibility in industry and construction and carries out activities for which they were set up, employees do not know about their existence in services companies”.

Only one expert interviewed explicitly mentioned a positive aspect of macro strategies on high-skilled employees’ life quality: “stimulating access to training courses, based on articles of the Labour Code - studies leave with opportunity of paid educational leave (art. 154, 157 of Law no. 53/2011. Labour Code). Thus, in art. 154, it states that “Employees are entitled to receive, upon request, leave for training. Such leave may be paid or unpaid”, and in art. 157 it states that “If the employer has not complied with his obligation to ensure the participation, on his expense, of an employee to training as provided by law, the employee is entitled to a leave for training, paid by the employer, up to 10 working days or up to 80 hours”.

If at the macro level, there is a general pessimism of Romanian experts on the efforts at central level to improve the quality of professionals’ life, at the micro level, in certain organizations, each of the respondents could list at least one good practice of management concern (even of directors in state institutions) to improve the working conditions of employees, even in the economic crisis, such as: job rotation, recruitment of young students from faculties in the final year which are paid scholarships then are hired and trained, payment for subscriptions for sports halls where employees to attend in their leisure time, health insurance for employees in private clinics, free annual medical check, sports competitions between company employees or healthy eating programs or for smoking cessation, providing free meals in the cafeteria of a company, improvement of infrastructure and working equipment for employees:

- “within my expertise, I met the job rotation so that employees not to become crazy, continually making the same thing: no employee remains in his post more than four years, after 4 years is moved to another post in another department - for example, from human resources after 4 years an employee goes to communication, then marketing etc.”;

- “compared with the lack of state policies, at the micro level I think that multinationals have understood the importance of psychological aspects, of general wellbeing and there are several initiatives on the health of employees, such as gyms payment, payment of a hot meal in the canteen”;

- “many multinationals in recent years offers for employees subscriptions at private clinics with many health services included in, or organize sports competitions among employees at ping-pong, football etc.”;

- “I know some companies that brought in the company pneumologists or nutritionist for performing training for employees to learn them to eat right and healthy and to help them quit smoking”;

- “there were local initiatives of directors of various institutions, to improve the working conditions of employees, to bring new research equipment, but received no funding for these projects”.

In Hungary, too, the experts interviewed expressed their dissatisfaction with the fact that the Government do not take enough steps to improve the lives of employees in multinational and do not sanction abuses of management, because these foreign companies not to leave Hungary and thus not increase unemployment, especially in this period of economic crisis.

There are also some cases of good practice in some multinational companies with subsidiaries in Hungary, especially with Scandinavian capital, where working conditions are good, but they are only initiatives at local level, there is not legislation, official governmental measures explicitly dedicated to improve the working conditions of highly qualified employees:

- “at the Swedish-owned company E., there is research department in Hungary, the company is a family atmosphere, the building is like a hotel, modern, with modern furniture, has palm trees, chairs, kitchen, staff are all young people”;

- “at small company with German capital S.D. (which manufactures filters for underground water transport), the plant looks like a museum with sculptures, paintings, restaurant and cafe, there are 120 employees of which 80% engineers, who have autonomy to invent all the time”;

- “at the IT companies like Google and Skype, the atmosphere is very relaxing, familiar, there are ping-pong and pool tables, it’s innovating all the time, is similar to a college campus”;

- “at Scandinavian-owned multinational firms such as Nokia, it dominates an open, positive atmosphere, favourable for human relations”;

- “G. R. (pharmaceutical company) with a family atmosphere, friendly and cooperative, or firm S.E. – also a company with a human face”;

- “there is coaching in multinationals, as a way initiated by management to reduce overload of professionals employed”.

Recently, increasingly more Hungarian small companies begin to focus on corporate social responsibility, on social dimension of sustainability, which includes concern for life quality of its own employees, according to interviewees.

### **3.4. Regulations on new types of occupational diseases**

The fourth objective of the research was to identify the existence in current strategies or legislation of special measures or rules to prevent new types of occupational diseases specific to non-manual occupations, such as eye- or headaches, stress, depression, back pain etc. According to Romanian experts, that they do not know in current legislation a certain concern to avoid occupational diseases specific to new types of occupations:

- “according to my knowledge, there is only one mention in the Law 319/2006 on the protection and safety at work, which regulates the psychological aspects, which is minimal compared to what is found in European legislation and especially guidelines”;

- “after a discussion with a lawyer in labour issues, I concluded that, since the majority of European recommendations in this area are an option, Romanian authorities have taken and transposed into Romanian legislation only those measures that are mandatory, about physical safety, ignoring the rest, related to psychological well-being”;

- “In the current strategy in force (National Strategy on Safety and Health at Work for 2008-2013) or in the previous (Romanian Policy and Strategy on Safety and Health at Work for 2004-2007), are not specified issues about the implications of the knowledge economy activities on safety and health at work”.

As in our country, Hungarian experts can not identify, in their country's laws, explicit regulations on new types of occupational disease specific to non-manual occupations, such as eye and headaches, stress, anxiety, back pain, heart disease etc.

### 3.5. Forms of protest used by high-skilled employees

As at the previous question, Romanian experts interviewed express the same disappointment and distrust of the ability of unions to contribute significantly at improving the life quality for employees, especially those of multinationals, primarily because for many of these companies, there are no unions; in many cases employees are tacitly advised not to join trade unions; in addition, in many multinationals “difficult” employees which protest are promoted to management positions or are dismissed, especially during the economic crisis:

- “I do not think that unions have ever been involved in it”;
- “on the forms of protest that high-skilled employees may use when they have complaints about working conditions, if they are not member of a union, they have no choice but to resign or to contact the Ethics Commission of the organization, but probably without much success; if they are enrolled in the union, should contact the union leader of the organization”;
- “because in many universities or institutes there are no unions, there is the possibility that interested employees to join directly to Federation of Trade Unions of Research-Projection in Romania; is not necessarily to have their union in the organization”;
- “being employee, if you set up a union in an organization, you will be blacklisted immediately by the management of that institution”;
- “employees are NOT encouraged to join and protest, especially in multinational companies (those who are “passionate” are annihilated, some are promoted to positions of management and give up the “agitation” or, at worst, those persons are dismissed); sometimes they have even a commitment that they will not subscribe in a trade union (not necessarily written)”;
- “there is union in research, various unions in education etc.; and their forms of protest are both classic (strikes, picketing and other classical instruments) and modern (online letters signed on Facebook or other social networks, such reaction of researchers in socio-human area on the new European research budget in the socio-human domain, that was proposed too small)”.

In Hungary, regarding the social dialogue and freedom of association in many multinational companies, the experts also recognize the lack of unions: “there are no unions in transnational companies in the services sector; trade unions exist in the national state companies, transport, industry”.

Referring to the „coverage” of employees by unions in multinational companies, although, as in Romania, in many cases employees are tacitly advised not to join trade unions, there are examples of good practice: „for example, hypermarkets chain TESCO, with English capital, or METRO, LIDL, where there are unions. There are also trade unions in some small and medium-sized Hungarian firms with domestic capital”.

Highly qualified employees, professionals from the private sector, as in the media (journalists), doctors, lawyers, architects etc. are not grouped into unions, but in „professional camera” in which they enter individually. According to respondents, teachers, researchers, doctors have no trade unions in Hungary.

Although there are numerous complaints of professionals (in the public sector are related to salary and those of the private sector - too long working program, unpaid overtime), “not being grouped in unions, when they are discontent, professionals can not use forms of protest specific to unions, so prefer to leave that company”.

If a Hungarian employee has a complaint related to working conditions, “if he is enrolled in the union, he addresses the union, that will try to solve the problem by discussing with management and if so will not solve, the employee will address the Official Labour Court; if the employee is not enrolled in the union, it will directly address the Official Labour Court, a rare case, because often there is the risk that employee to be fired”.

## 4. Conclusions

According to the research results, the vision of Romanian experts on the complaints of highly qualified employees regarding their work conditions in the current economic crisis is similar in many ways to that of the Hungarian experts. In both countries, the professionals’ complaints differed based on the type of property and the source of capital invested in the firm – the firm’s area of activity influenced less their discontents. Thus, the main complaints of those in the public service (doctors, professors) refer to low salaries as opposed to the great intensity of work that causes overload; for those in the private sector – an accelerated pace, lack of autonomy, authoritarian management, rigid multilevel hierarchy, standards imposed by the mother-firm, lack of work-life balance, no payment for extra hours, lack of unions to support their rights, the lack of safety of the workplace.



Although rare, cases of good practices have been mentioned by experts as to be found mainly at a micro level, in certain firms, especially the Romanian and Hungarian branches of multinational companies (most of them with Scandinavian capital), especially in IT&C field.

The lack of a legislation aimed at improving working conditions for highly qualified employees, as it is the case in the present study, focusing on the specific difficulties they face, especially in this economic crisis period, is felt acutely in both neighbouring countries. Both the Hungarian and Romanian legislation concentrate only on the work protection norms for manual workers in industry and construction. A common explanation from several Romanian and Hungarian experts on the absence of such legal measures on a national level to protect highly qualified workers from the services sector is that the legislation has not evolved from the industrial period (highlighting protection norms for manual workers in industry and construction), while the economy changed and the share of services sector increased.

Taking into consideration the fact that the services sector (and especially the knowledge-intensive services) produce almost 2/3 of the GDP, and the highly qualified employees are an ever-increasing part of the total of employees in the respective sector, it has become necessary to elaborate public policies to improve the working conditions of these employees, who have specific complaints and are risk-prone to new types of professional illnesses, complaints and risks exacerbated by the current economic crisis. These policies need to be associated with the already achieved organizational changes inside certain companies, unfortunately too few, changes meant to introduce measurements to improve life quality for their employees.

## 5. References

- Alvesson, M.; Willmott, H. (2003) *Studying Management Critically*. London: Sage Publications.
- Alvesson, M.; Deetz, S. (2000) *Doing Critical Management Research*. London: Sage Publications.
- European Commission (2010) *Europe 2020. A European strategy for intelligent, ecologic and inclusion favourable growth*. Brussels.
- European Commission (2007) *Improving quality and productivity at work: Community strategy 2007-2012 on health and safety at work*. Brussels.
- European Council (2008) Council Decision of 15 July 2008 on guidelines for the employment policies of the Member States. *Official Journal of European Union*.
- European Foundation for the Improvement of Living and Working Conditions – Eurofound (2004) *Changing Europe: Better work, better life. Four-year work programme 2005-2008*. Available at <http://www.eurofound.europa.eu/publications/htmlfiles/ef04103.htm>.
- Fazekas K.; Molnar G. (eds.) (2011) *The Hungarian Labour Market. Review and analysis 2011. Effects of the crisis*. Budapest: Institute of Economics, Hungarian Academy of Sciences.
- Hoffman, O. (2004) *Sociology of organizations*. Bucharest: Economica Publishing House.
- Leovaridis, C. (2010) A comparative perspective on the state of health at work for employees in EU countries. In E. Avram (ed.). *The psychology of organizational health*. Bucharest: Universitary Publishing House, p. 36-50.
- Leovaridis, C. (2011) The quality of employees' life in EU countries. Aspects regarding nature and organization of work, *Romanian Journal of Sociology*, 5-6, p. 421-436.
- Mako, C.; Csizmadia, P.; Illessy, M.; Iwasaki, I.; Szanyi, M. (2009) *Organizational Innovation in the Manufacturing Sector and the Knowledge Intensive Business Services*. Tokyo: Hitotsubashi University.
- Mehaut, P. (2008) Reshaping the internal labour markets and re-articulating them to external labour markets: hypothesis from the France case. In Grunert, H. (ed.), *Good and "bad" external labour markets*. Jena: University of Jena, p. 77-86.
- Nielsen, P.; Lundvall, B.-A. (2007) Innovation, learning organizations and employment relations. In Mako, C.; Moerel, H.; Illessy, M.; Csizmadia, P. (eds.), *Working it out? The labour process and employment relations in the new economy*. Budapest: Akademiai Kiado, p. 65-84.

**Acknowledgement.** This paper is supported by the Sectorial Operational Programme Human Resources Development (SOP HRD), financed from the European Social Fund and by the Romanian Government under the contract number SOP HRD/89/1.5/S/62988.

# RESEARCHES REGARDING THE APPLICATION OF THE CLASSIC TOOLS OF QUALITY MANAGEMENT IN HIGHER EDUCATION UNITS

*LUCA Liliana*

*Professor Ph.D., Faculty of Engineering, University Constantin Brancusi of Targu-Jiu, Targu-Jiu, Romania,  
[lylyanaluca@yahoo.com](mailto:lylyanaluca@yahoo.com),*

*MIHUT Nicoleta*

*Lecturer Ph.D., Faculty of Engineering, University Constantin Brancusi of Targu-Jiu, Targu-Jiu, Romania,  
[nicoleta\\_simionescu@yahoo.com](mailto:nicoleta_simionescu@yahoo.com)*

**Abstract:** *The paper presents a method for assessing the quality of a service by applying one of the classic tools of quality management. It studies a quality related issue in the higher education process, a small pass rate to the exams taken by students. It presents all the possible main identified causes. The potential secondary causes are identified for every main cause. A cause-effect diagram is made (ISHIKAWA diagram), in a formula specific to the studied problem -  $3M+1MP+1MS$ . It underlines the advantages of this method for repairing the matter in study.*

**Key words:** education, low pass rate, causes, Ishikawa

**JEL classification:** I290 (Education: Other)

## 1. Introduction

Quality management is a fundamental quality of academic strategic management and this is why it is important to discuss it within the context of higher education reform in Romania.

Romanian education reform has been required by the changes made in the Romanian society after 1989. The decisional system has been decentralized, university autonomy has been developed and there has inevitably resulted the need for developing a quality management system in universities.

One of the strategic objectives of the higher education reform process was the development of a total quality management system.

When we are discussing the problem of total quality management implementation in higher education, we are considering the fact that universities are fundamentally different from the companies with production processes.

The educational process is fundamentally different from the production process. The main processes developing in universities are: education processes and research processes.

Another problem specific to universities refer to the concept of client. A client is the student with two roles:

- internal client- direct participant to the education process
- external client- beneficiary of the knowledge transmitted in the education process.

Students also have the role of products of the educational process, which reach the work force market.

The quality of the educational process is reflected in the quality of knowledge transfer from the professor to the students.

The classic educational process is based on the knowledge transfer process from the professor to the students. It is a process centred on the professor and the quality of the educational process depends on the quality of professors and laboratories (Bratianu, 2000).

The great universities worldwide have developed a dynamic educational process, in which students play an active role. The process is centred on the student. The quality of the educational process is determined both on the way in which the professor has conceived the learning process and by the students making increased efforts for developing their thinking and acting capacity (Rusu, 2001).

Assessing the quality of the educational process can be made partially by assessing the knowledge acquired by students.

An important indicator of the quality of knowledge acquired by students is the pass rate percentage of students at exams.

The causes that determine a higher or a lower pass rate percentage have to be known and analyzed in order to act accordingly.

The paper uses an instrument of quality management for determining the causes that determine a small pass rate percentage.

The concept of total quality occurred at the end of the 20<sup>th</sup> century, has established the quality management tools. The 7 classic tools used in quality management are: histogram, cause-effect diagram, Pareto diagram, correlation diagram, control chart, data stratification, Brainstorming.

The cause-effect diagram – fishbone or Ishikawa - was developed by Kaoru Ishikawa in order to determine and divide the causes of a given problem on main fields of causes. It is recommended to use it only when there is only one problem, and possible causes can be classified based on several criteria.

Ishikawa diagram is a graphic representation that schematically illustrates the relations between a specific result and its causes. (Severin, Voicu, 2005)

The studied effect or negative problem is “the fish head” and the potential causes and sub-causes define the “fish bone structure”.

Therefore, the diagram clearly reveals the relations between a problem identified in a product and its potential causes. The cause-effect diagram can be built into several variants: 5 M (Machines and devices, Manpower – workers, Methods, Materials, Maintenance), 4 M (when maintenance is omitted), 6M (including a sixth dimension – the environment), 4 P (for extra-productive fields where the main causes can be grouped into Policies, Procedures, Personnel, Position-location).

The cause-effect diagrams are very useful in analyzing a certain fault or a negative problem in general occurred in the field of production, in the field of services provision or in any other field of activity.

An interesting model of Ishikawa diagram was developed in the case of a defect occurred after a service car repairing. (Luca, 2011).

The most known models are 4M, 5M, 6M, the initials being in order: materials, methods, men, machines, mother nature, measurement (Kifor, Oprean, 2002).

The factors that may cause a problem have to be identified as accurately as possible and for this purpose, every person involved in the problem has to take part in a Brainstorming debate.

Specialized literature presents many Ishikawa diagrams made for various identified problems and for which causes had to be found and analyzed in order to be removed in the future.

The paper presents the results of a study concerning the use of the Ishikawa diagram in analyzing the causes that determine a non-quality problem in higher education process.

## **2. Determining and classifying the causes of low pass rate to the exams taken by students**

The studied problem was “**low pass rate at exams**”. All the possible, main and secondary causes that could generate the studied problem were identified.

In determining the main causes we left from the list of identified secondary causes that determine small percentage of promotion at the examinations held by students. We took into account the main causes that are presented in the literature in chapters that relate to the cause – effect diagram. We tried to respect one of the formulas 4M, 5M or 6M but we noticed that in this case none can be met exactly.

Since learning process differs fundamentally from the production process, the main causes are specific to this field. Consecutive to this study, we have identified two main causes that are found in the previously developed works, namely: *management* and *environment*.

We set another main cause as being *Methods and materials used in the learning process*. Here we included secondary causes that relate to teaching methods, materials and equipments used in the learning process with the specification that materials exclude the student.

In the known (classical) cause-effect diagrams is given as a primary cause - the materials, meaning materials used for the product realisation and that goes into the finished product. In the educational process the material to process is the student and the finite product is represented by the competences acquired by a student upon graduation of a college.

The student has multiple roles: material of the educational process which eventually turns into a competent graduate for the labour market, internal customer - direct participant in the educational process, external client - beneficiary of knowledge transmitted in the learning process. In this context, we gave choosing a main cause - materials, in the classic theory of cause - effect diagram.

In terms of people (workers) who participate in the educational process we have two major players: teacher and student.

So we thought for this case under study that it is still necessary to consider two main causes, represented by: *man-teacher* and *man-student*.

Table 1 presents the main and secondary causes that were identified.

**Table 1: The main and secondary causes**

The identified problem	Main causes	Secondary causes
Low pass rate at exams	Methods and materials used in the learning process	Appropriateness of teaching methods Teaching based on feedback General organization of the course Courses presentation rate Materials (courses, exercise book, laboratory guidance, standards, etc..) Laboratory equipment Computer and information systems Library and reading room Teaching oriented towards student requirements Teamwork Stimulation of attention Encourage the students to ask questions Correlation between the amount of information and the students fatigue Defining the utility of course themes in the future career Identifying learning styles
	2.Management	University management Faculty management Department management Management of students group as an educational community based on mutual support Quality management system implemented for all processes carried out in the university
	3.Environment (Mother nature)	Involvement of local community Family involvement Psychological assistance Social assistance Appropriate environment for teaching Appropriate environment for student organization activities
	4 Man- Professor	Professional training Physical condition, fatigue, nervousness Individual training Communication style Simulation by providing prizes Financial motivation
	5. Man- Student	The knowledge acquired in high school Intellectual development Skills in conformity with the faculty profile Creativity Personality The adaptation degree to higher education Encouraging performance Students' interest Student trust in the university

### 3. Ishikawa Diagram

The graphic representation of all the possible, main and secondary causes is rendered in figure 1.

A fish skeleton resulted that we called in this paper the Ishikawa diagram "3M+1MP+1MS".

The diagram symbols, 3M + 1MP + 1MS, were chosen after the names of the main causes :

- **Methods and materials used in the learning process** , M

-**Management**, M

-**Mother nature (environment)**, M

-**Man- Profesor** , MP

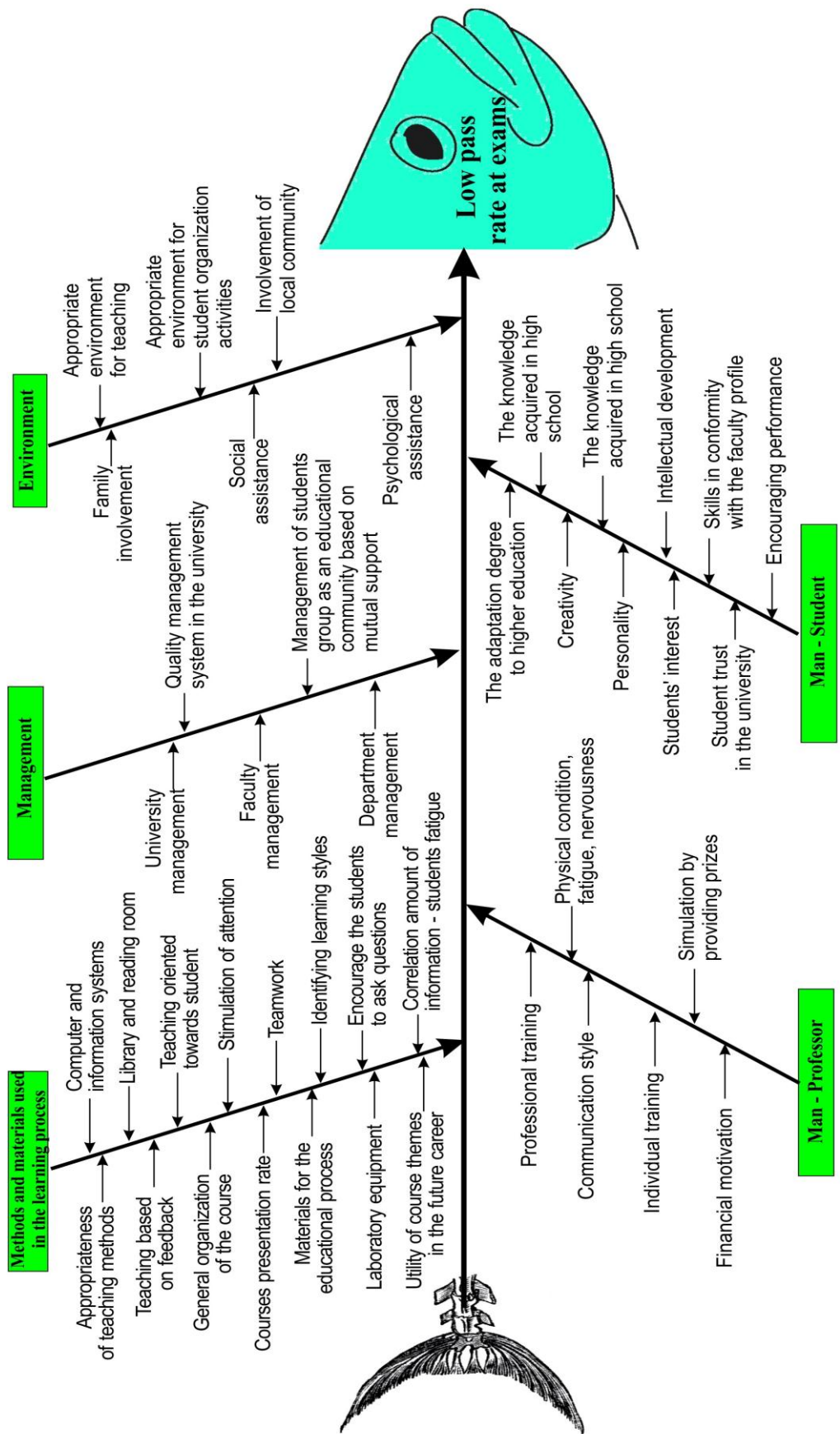


Figure 1. Ishikawa Diagram "3M+1MP+1MS" for the problem: Low pass rate at exams.

#### 4. Conclusions.

The Ishikawa diagram helps analyzing the causes of quality faults in the education process.

The development of the Ishikawa diagram in a detailed form for determining the possible causes of a problem (the quality of the education process reflected in the students' pass rate to exams) has the advantage of giving the possibility of identifying and analyzing all the factors connected to the problem. Drawing a very good Ishikawa diagram has the advantage of directing the organization / university that deals with the settlement of a problem, towards the causes that generate the problem and removing them and not only towards the remedy of the problem.

Using the Ishikawa diagram in the educational field is also useful for improving the quality insurance and control system.

Using the Ishikawa diagram allows highlighting the main causes of non-quality and it represents an important tool in the quality planning.

#### 5. References

- American Society for Quality, Fishbone diagram. <http://www.org/learn-about-quality/cause-analysis-tools/overview/fishbone.html>
- Bratianu, C.(2000), *Calitatea procesului de invatamant universitar*. Q Media, Anul 2, pp.28-31.
- Cananau, N.(1998), *Sisteme de asigurarea a calitatii*. Editura Junimea, pp121-125.
- Ionita, I.(2008), *Managementul calitatii si ingineria valorii*. Editura ASE Bucuresti, pp186-187.
- Ishikawa, Kaoru (1986), *Guide to Quality Control*. Asian Productivity Organization, Tokyo, Japan.
- Kifor, C. V., Oprean, C.(2002), *Ingineria calitatii*. Editura Universitatii Lucian Blaga , Sibiu.
- Luca, L.(2011), *Study on the determination and classification of the causes that determine the faulty operation of a vehicle fuel pump*. Recent Researches in Manufacturing Engineering. 3-rd WSEAS International Conference On Manufacturing Engineering, Quality and Production System (MEQAPS'11). Published by WSEAS Press, ISBN 978-960-474-294-3, pp. 21-24.
- Olaru, M.(1999), *Managementul calitatii*. Editura Economica, Bucuresti.
- Pruteanu, O.(1998), *Managementul calitatii totale*, Editura Junimea, Iasi, pp.166-168.
- Rusu, C. (2001), *European dimension in quality assurance*. Editura Economica. Bucuresti.
- Severin, I., Voicu, M.(2005), *Ingineria calitatii*. Editura Printech, Bucuresti.

# COLLECTIVE LEADERSHIP – ORGANIZATIONAL DIMENSION OF HUMAN RESOURCES STRATEGIC DEVELOPMENT

**MANOLE Cristina**

*Assistant Professor Ph.D., Faculty of Administration and Public Management/ Department of Administration and Public Management, Academy of Economic Studies, Bucharest, Romania, e-mail: cristina\_manole68@yahoo.com*

**ALPOPI Cristina**

*Associate Professor Ph.D., Faculty of Administration and Public Management/ Department of Administration and Public Management, Academy of Economic Studies, Bucharest, Romania, e-mail: calpopi07@yahoo.com*

**Abstract::** *This study aims to show how important the role of leader is, in the context of public leadership as a form of collective leadership. The expected results, obtained after applying research methodology, will reflect the management styles of leaders.*

*In this regard, the action of a leader becomes essential, both to revitalize their management teams and to develop a social environment based on collaboration and collegiality – the dominant features of collective leadership.*

**Key words:** strategic development of human resources, collective leadership, social climate, formal / informal leader.

**JEL classification:** CO2; H8H83; J5J53; M1M12; O1018; Z1Z13.

## 1. Introduction

I was mentioning in a recent study (Manole, 2011, p.208), that in the context of economic crises, when the organizations (public institutions / private companies) go through a series of changes at different levels, the strategic development of human resources (SDHR) may provide a useful conceptual framework for senior management to better manage crisis (Wang, Hutchins and Garavan 2009, p. 22-53). However, according to experts, SDHR involves many different systematic, formal processes, which need to be adapted to the needs of the organization, to its economic and financial restrictions. SDHR also helps the management to improve its operational capabilities, all the specific skills and abilities that enable better management of existing crisis and preventing future ones (Wang, Hutchins and Garavan, 2009, p. 22-53).

Designing and developing a human resources strategy involves leaders to analyse deep several aspects: evaluation of human resources management system, including recruitment procedures and systems and employees development, their capacity to meet future organizational goals and to adapt to changes; assessing the current supply of staff (establishing the correlation between the number of employees, skills, competencies and professional experience, on the one hand and other factors, such as duties, responsibilities, workload and level of responsibility, on the other hand); assessing organizational culture and internal human relations in terms of staff capacity to meet predetermined objectives, ensuring a close correlation between human resources management system (personnel administration, personnel management itself, information and communication social development, etc..) and objectives set in the strategy development, evaluating the impact on stakeholders in the work and results achieved by them, etc.. Thus, complex analysis that leaders must make to design and develop a specific organizational strategy, including human resources, require from them, a sustained intellectual effort including multiple knowledge and many skills, attitudes and professional competences.

In a recent review (Manole, 2011, p.207-221) showed that leadership, culture, structure and strategy are the four internal dimensions of organizations which would explain the contribution of strategic human resource development to manage crises that arise at insitutional level and to private companies. In this paper, we will focus on leadership, which is an important vector of development, so that its role should not be reduced, but not overwrought.

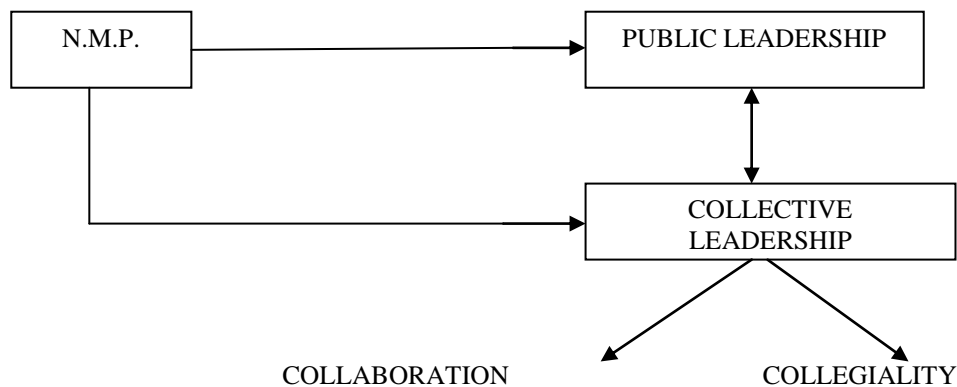
According to specialists (Dunleavy et. al., 2006, p. 467-494) new public management, which has been the focus in recent decades is not quite as current. It is now argued that “the torch” to change the leadership passed through the new public management and should be redirected and handed to supporters



of public leadership. According to specialists (Brookes, 2011), public leadership can be defined “as a form of collective leadership in which public bodies and agencies work together to achieve a common vision based on common values and objectives that seek to promote, influence and deliver economic prosperity in a changing and complex social context”.

As such, I believe that the shift from new public management (N.M.P.) in collective, public leadership can be represented schematically as follow:

**Figure 1: The transition from the N.M.P to collective (public) leadership**



In the current economic crisis is absolutely necessary the transition to the new public management leadership team in order to obtain results arising from the collaboration between different organizations and in the equitable distribution of responsibilities and encourage teamwork. As observed in previous scheme (see Img.1), to the base of the collective leadership are two fundamental concepts: collaboration and collegiality (Brookes, 2011). Thus, in terms of first principle, that of collaboration, emphasis must be placed on the common elements of a certain vision, which requires teamwork at different levels. From the perspective of the second principle, that of collegiality, emphasis must be placed on the delegation and empowerment of several teams in a framework of responsibility, which holds a common vision and strategic objectives.

In this context, it is necessary to understand exactly what is collective leadership, how to develop leadership skills and when to appreciate the leadership to be effective. The strategic side of leadership is an objective, consisting of working activities and / or administrative, that make up the economy and strategy of the organization. The approach of this part of leadership involves detailed analysis, precision, rigor, etc.. The subjective (human) leadership is based on organizational culture and individual spirit. In fact, in reality, we can not speak of an organizational culture a number of individuals think and act as a leader, if an organization are a sufficient number of people with a genuine leader mentality (Moldoveanu, 2005, p.260).

Concluding this part of the study, we can say that a true leader will be able to recognize and appreciate the leadership skills of others and also to delegate those with leadership aptitudes and special skills. So, this is key, say experts (Brookes, 2011), for achieving public leadership (collective).

## **2. The social climate study of strategic human resources development perspective**

We mentioned earlier that, the approach of human resource strategy involves a thorough analysis of several management aspects, including assesment of human relationships (the internal social environnement), in terms of staff capacity to meet prescribed organizational objectives. Also, collective leadership is that which allows, at present, to obtain at institutional level, the results arrising from the collaboration between different social groups and from the equitable distribution of responsibilities and encourage teamwork.

For the promotion of teamwork (major feature of collective leadership) the official leader of the group, his qualities must give employees a sense of collective responsibility in terms of fulfilling the objectives and strategies adopted at the organizational level. From this point of view, he must be perceived by everyone else, at the same time, as the informal leader (informal, emotional), the performing groups are those in which the informal structure becomes functional, facilitating the mutal knowledge of individuals participating in groups, maintaining the common language of the group, through purpose and motivation, thus releasing the entire informational system. It is known that affective structure of a group, the type of communication within, and the type of existing leadership within the group generates the

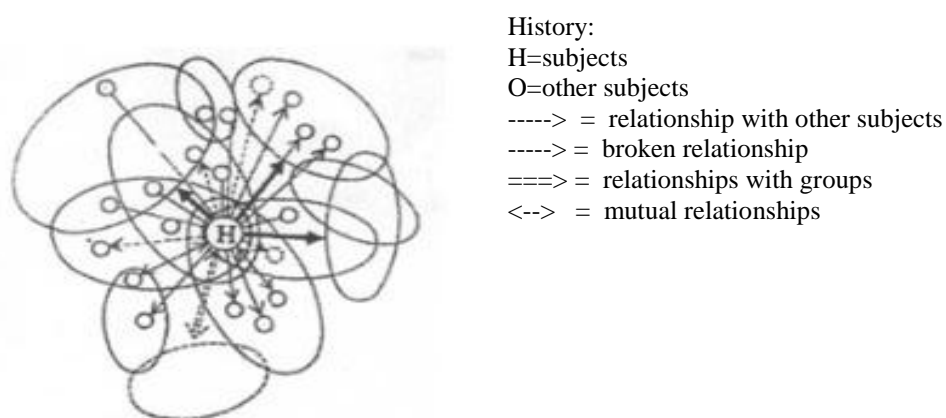


emergence of informal subgroups (cliques) which often give the existence of internal states of tension and conflict, with extremely negative influences on the performance (Caramete, 2002, p.104-105). In this context, the research of affective structure (informal) distinguishes social relationships between individuals, their position in the group configuration (including the official leader) and influence each other on the performance of the group.

To investigate and quantify affective relations existing in a professional group, the sociometric technique can be used (as a research method) which is actually a set of processes and mathematical and graphical techniques (test and sociometric table, target sociogram) which allows the configuration for determining the group's structure, the leader's official position and the informal one, and also the constellation of connections (relationships) between group members, as it appears at a given time (Caramete, 2002, 105-106). In fact, sociometric technique has applicability in economic sociology.

Thus, sociometric study conceives human relations as being arranged in sociometric network, formed by the action of "social atoms", "social electrons", etc. (Roman, 2000, p.67). Here is an outline of "social atoms" which imagines the links from which it belongs, and links to subjects belonging to other groups (Roman, 2000, p.67).

**Figure 2: Social atom sociogram**



**Source:**(Roman,2000,p.67)

The test is designed in terms of surprising the emotional climate, assuming, for achieving the sociogram, obtaining individual scores which mean group structure and types of status of its members. As a test designed to capture the role of work climate, its orientation is, from the beginning, towards the activities involved in the specific domain, in which the analyzed groups belong.

Thus, each group member is required to express preferences (and denials) in the selection (and rejection) of other groups members, to accompany him in a professional activity, such as achieving a work on specific problems or analysis data necessary to develop business development projects at the institutional level.

The test requires the first three members appointed by positive scores (+3; +2; +1) on which such employee would like to have as collaborators, and also the first three members with negative scores (-3; -2; -1;) on which he will not wish to work with it on the completion of professional tasks.

The test requires also a member of each group to present its views on those who believe that elected him and those who rejected him for the same type of activity.

Answers to questions of this type are represented graphically in a sociogram; this provides and insight into the emotional structure existent, revealing who the "star" group is (the group member who converge positive choices), who are the "isolated" (group member who get a score equal with "O"), the "rejected" (those who obtain negative scores), which are the "mutual" elections (Manole, 2011, p.217).

In our efforts, we have chosen to apply the sociometric method as a research method for social climate of two services: Territorial Planning Service and Urban Data Management and Heritage Administration Services and Urban Commerical, of the local public authority, believing that the development of collective leadership would be a major objective to revitalize the local public sector in the current economic crisis.

Another reason that led to the choice made was the activity within the two services (see table 1.), this having a great impact on the population, from the perspective of modern urban development.

**Table 1: Main activities undertaken**

<b>TERRITORIAL PLANNING SERVICE AND URBAN DATA MANAGEMENT</b>	<b>HERITAGE ADMINISTRATION SERVICES AND URBAN COMMERCIAL</b>
<ul style="list-style-type: none"> <li>• provides modern urban development of the area and respects the legislation in its domain;</li> <li>• applies the strategy imposed by urban plans approved by the Decision of Local Councils;</li> <li>• checks the documentation required for the issuing of Urban Certificates and Building Permits ;</li> <li>• Improves communication relationships between citizens and services, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• presents committees of the City Council reports on the administration of goods belonging to public and private city;</li> <li>• participates in joint actions with other police services and community hall in the matter of public administration and management of the municipality ;</li> <li>• manages assests which consists of movable and immovable property belonging to the public domain for local and private sector of the city;</li> <li>• creates inventories on movable and immovable property located on public and private city, etc.</li> </ul>

In accordance with the law, central and local authorities are obliged to ensure the organization and the process of public participation in development activities of the territorial and urban area (Alpopi, 2008, p. 118).

It also said, authorities are designed to manage all public and private land and buildings, construction of buildings and facilities responding to the public. In this respect, some public authorities tasks are the following: (Alpopi, 2008, p.120)

- check how owners and owners of land and construction manage these assets, in accordance with the documentation of land use and planning regulations and other community interests;
- organize data banks and information systems for management of land and settlements (data is used only in public interest, due to the confidentiality character it posses);
- establish easements on real property (restriction on the use of land and contruction completion) to carry out public work of general interest such as (Alpopi, 2008, p. 120):
  - networks of water, sewerage, electrical, gas, heating, telephone etc.;
  - social objectives of education, research, health, culture, sports, public administration, justice, etc.;
  - - historical or natural monuments and protected areas declared by law;
  - - ways of communication;
  - - airport and ports;
  - - exploration and exploitation of soil and subsoil;
  - - goals for the country's defense, public order and national security.

## **2.1 Applying the research**

At the level of the two services was applied the following sociometric test (Manole, 2011, p. 217) on a number of 11 employees of the Service Territorial Planning and Urban Data Management and 15 employees of the Administration Services Heritage and Urban Commerical, and the structure is as follows;

**Table 2: Territorial Planning Service and Urban Data Management**

Nr of employees	Employees structure			Task Coordinator (job)
	Employee number	Qualification	Age gap	
11	1	1-ECONOMIST	35-40	ECONOMIST
	10	2-COMPUTER OPERATORS	20-40	
		2-PROFESSIONAL REFERENCES (technicians)	35-55	
		4-ENGINEERS	25-55	
		2-ECONOMISTS	30-35	

**Table 3: Heritage Administration Services and Urban Commercial**

Nr of employees	Employees structure			Task Coordinator (job)
	Employee number	Qualification	Age gap	
15	1	1-ECONOMIST	40-45	ECONOMIST
	14	3- COMPUTER OPERATORS	20-40	
		4- ROFESSIONAL REFERENCES (technicians)	35-55	
		3- ENGINEERS	25-55	
		2-ECONOMISTS	30-35	
		2-UBENGINEERS	40-55	

## 2.2 Sociometric test model:

1. If, next week, you made the team to work on specific problems regarding the team to which they belong, with which of your colleagues would you like to work? Name the first three of them (+3;+2;+1).
2. The same scenario as above, with which colleagues would you not chose to work with. Name three of them ( -3; -2; -1).
3. In the conditions of achieving the requierd work, which of the colleagues do you belive has chosen you to work within a team? Name three of them.
4. Which of the colleagues do you believe do not want you to work along side them? Name three of them.

According to the research method, the results of sociometric test, applied to employees of both services can be found in the sociometric tables and their graphical representation in the target sociometric graph of the two entities analyzed, as follow:

**Table 4: Extract table sociometric Territorial Planning Service and Urban Data Management**

Nr. crt.	MEMBERS	COLLECTIVE MEMBERS						
		VR	GM	TS	AN	.....	PC	AM
1	VR		3	1	-1	.....		2
2	GM	3		2	-2	.....	1	-1
3	TS		3		1	.....	-1	2
4	AN	1	3	-1			2	-2
	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
	.	.	.	.	.	.	.	.
10	PC	3	2		1	.....		
11	AM	-1	3		2	.....	-2	
	SCOR “+””-”	20/- 15	24/-3	3/-1	7/-3	.....	3/-3	4/-3
	SCOR TOTAL	5	21	2	4	.....	0	1

Source:(Caramete,2002,p.120)

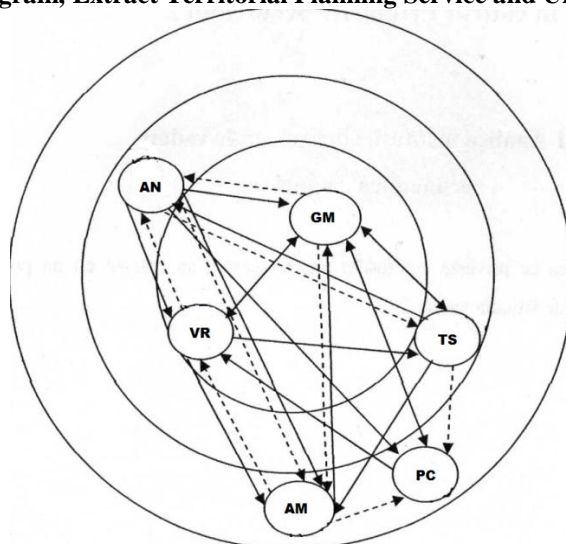
**Note:** “VR.”, “GM”, “TS”, etc, represent the name and surname initials of staff member researched.

Sociometric table reads as follow:

- “VR” preferred “GM”, “AM” and “TS” and rejected “AN”;
- “GM” preferred ”VR”, “TS” and “PC” and rejected “AN” and “AM”, etc.

Seen from the sociometric table that : ”GM” is the formal leader of the team analyzed, according to the official strucuture and also the informal leader (unofficially), because for him have turned most choices (preferences) from the group’s members, giving him the highest posivite score (+ 21 points). The isolated area of the group (“PC”) has obtains a score of 0. Graphical representation of the situation obtained is as follow :

**Figure 3: Target sociogram, Extract Territorial Planning Service and Urban Data Management**



Source:(Caramete,2002,p.123)

**History:**

- teleelement “+”
- - - - -→ teleelement “-”
- ←————← mutual attraction
- ←- - - - -→ mutual rejection

**Table 5:Extract table sociometric, Heritage Administration Services and Urban Commerical**

Nr. crt.	MEMBERS	COLLECTIVE MEMBERS							
		RV	AP	DC	CM	IC	.....	ET	OS
1	RV			3	-3	+1	.....	-3	
2	AP	-2		2			.....		-3
3	DC	-1				2	.....	-2	1
4	CM	-1	3	2		-1	.....		-2
5	IC	3	-2	1			.....		
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.
14	ET	-1	3	-2	2		.....		
15	OS	3	1	-2	-3	-1	.....	2	
	SCOR“+”/”-”	14/-7	12/-4	25/-13	33/-8	14/-10	.....	2/-8	1/-10
	SCOR TOTAL	7	8	12	25	4	.....	-6	-9

Source:(Caramete,2002,p.121)

**Note:** “VR.”, “GM”, “TS”, etc, represent the name and surname initials of staff member researched.

Sociometric table reads as follow:

- “RV” preferred “DC” and “IC” and rejected “CM” and “ET”;

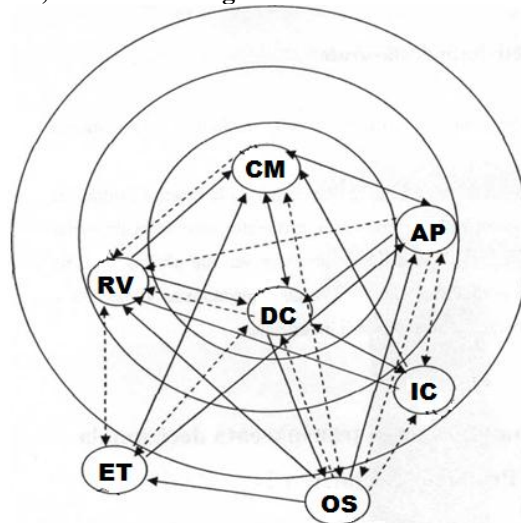
- “AP” preferred ”DC” and rejected “OS” and “RV” etc.

Seen from the sociometric table that :

While the “AP” is the official leader of the team analyzed, according to the official structure of the group, “CM” becomes , through the members’ votes, the informal leader (unofficial), because he obtained the highest positive score (+25 points).

The rejections of the group are “ET” and “OS”, because they have negative scores, etc.

**Figure 4:Target sociogram, Extract Heritage Administration Services and Urban Commerical**



Source:(Caramete,2002,p.124)

Applying sociometric method can be seen that the differences in the work climate within the groups analyzed reflect the management style of each leader, and also the internal competition between its members. Thus, if for the first service (Territorial Planning Service and Urban Data Management), we can speak of a “hot” climate (based on collaboration and collegiality, characteristics of the leadership team) resulted in a solidarity around the official leader of the group, who obtained a maximum positive score (gaining also the informal leadership status, unofficial) in the case for the second service (Heritage Administration Services and Urban Commercial) the situation is different, in that there is observed an isolation of the official leader (its score is close to zero). At the level of the second service, there is another person with the status of informal leadership, thereby achieving the highest positive score (+25 points), because all the groups members’ choices were directed to her.

This is because the formal leader comes from the old team, maintaining a leading position due to his relationship with the current senior management of the institution. This leader follows a "command" management style, which consists mainly of verifying the achievement of activities by staff members, in a rigorous way. Or, this management style is old, not allowing normal operation of business. The disputed leader, close to retirement age, is unable to open communication with subordinates (including informal leader), not understanding the need to stimulate them towards achieving superior performance at the level of the positions held.

From this perspective, the formal leader should be replaced with a high ranking leader of the institution, open to new or with the informal leader of the younger subgroup of the studied service. This replacement is absolutely necessary because the formal leader (official) of the group has demonstrated that he does not have the capacity to create a „hot” climate, of collaboration, at the level of service he coordinates. So, he is unable to promote team work (major feature of the collective leadership) and to give employee a sense of responsibility towards the objectives set at the level of subdivision he leads. From the perspective of the other service reviewed, in which there is a balanced situation, I suggested a more dynamic structure, an increase of „rotation” in employees tasks. This dynamic should be designed to eliminate possible conflicts of competence, which could occur due to limited individual capabilities in relations with completion of common objectives.

### 3. Conclusions

Therefore, the action of the leader becomes essential, both to revitalize their management team and developing a work environment based on collaboration and collegiality with all other employees. The effectiveness of an action of a leader is the key for achieving public leadership as a form of collective leadership, which can be developed within the Romanian public sector in coming years.

From the perspective of public leadership, the structure of a work team becomes functional and depending on how the authority within the group shifts, the acceptance by team members, an authority with coordinating role, animation and control its activities. Thus, the nature of authority prescribed for a particular work group, is influenced by the characteristics of leaders, how they conform to or exceed the prescriptions of their functions (Manole, 2006, p 52-54).

We could say that, under the conditions of public leadership development, as form of collective leadership needed to revitalize the local public sector, teamwork should acquire new meanings, requiring several conditions to be satisfied in order to obtain performance (Manole, 2006, p.53), as follow:

- bilateral interpersonal communication to be easy in absolutely every direction, not only in the ways prescribed by the official network, established to fulfill the task;
- affective participation in the group work to be consciously accepted by all its members ;
- the possibility to express disagreements and tensions within the group is maximum;
- individual difficulty cases need to be solved by the participation of all group members;
- division of labour to be performed after establishing common goals and accepted in relation to the structure and function of this;
- knowledge of aptitudes, reactions and initiatives of each group member, which will exclude any surprises within the team.

Work climate plays therefore an essential role in transforming the group into a team, under stable environmental conditions, the action in this environment becomes the normal expression of spontaneity potential team.

### 4. References:

- Alpogi, C. (2008) *Elements of Urbanism*, University Publishing House, Bucharest.
- Brookes, S. *Are public leaders up to standard?*, *The C.S.L. Leadership Review*, Available at <http://www/cslnoguelph.ca>, accessed 23 Martie 2012.
- Caramete C. (2002) *Study on organizational climate and work stress*, A.S.E.Publishing House, Bucharest.
- Dunleavy, P., Margetts, H., bastow, S. and Tinkler, J. (2006) New Public Management is Dead-Long Live Digital-Era Governance in *Journal of Public Administration Research and Theory*, 16, p.467-494.
- Manole, C. *Human Resource Management in Public Administration*, Publisher A.S.E., Bucharest, 2006.
- Manole, C. (2011) The strategic role of human resources development in the management of organizational crisis, *The Economic Review, Management Series*, vol.14, Publisher A.S.E., Bucharest, 1, , p. 207-221.
- Moldoveanu, G. (2005) *Analysis and organizational behavior*, Economical Publishing House, Bucharest,.
- Roman, T. (2000) *Introduction to Economic Sociology*, Publisher A.S.E., Bucharest,.
- Wang, J., Hutchins, H.M. and Garavan, T.N. (2009) Exploring the Strategic Role of Human Resource Development in Organizational Crisis Management, *Human Resource Development Review*, 8, p. 22-53.

# WORK CAPACITY AND FATIGUE RELATION IN EMPLOYEES ACTIVITY

**MANOLESCU Aurel**

*Professor Ph.D., Faculty of Management, Academy of Economic Studies, Bucharest, Romania,  
[aurel\\_manolescu@yahoo.com](mailto:aurel_manolescu@yahoo.com)*

**MOROSAN-DANILA Lucia**

*Teaching assistant, Faculty of Economics and Public Administration, University "Stefan cel Mare" Suceava, Suceava, Romania, Ph.D. student at Academy of Economic Studies, Bucharest, Romania, [luciad@seap.usv.ro](mailto:luciad@seap.usv.ro)*

**BORDEIANU Otilia-Maria**

*Teaching assistant, Faculty of Economics and Public Administration, University "Stefan cel Mare" Suceava, Suceava, Romania, Ph.D. student at University "A. I. Cuza", Iasi, Romania, [otilia@seap.usv.ro](mailto:otilia@seap.usv.ro)*

**Abstract:** *The purpose of the paper is to present the relation between fatigue and work capacity of the employee, in order to highlight the importance of the two factors in organisation of the work. Because we cannot always achieve optimal working conditions, motivation and activation, we have to appreciate fatigue and the work capacity of each individual, especially if we want to assure an intensive and long lasting professional activity. It is important for the employer to understand and implement a system for work efficiency taking into account the fatigue and work capacity with the final goal to achieve better profitability.*

**Keywords:** fatigue, work capacity, efficiency, productivity

**JEL Classification:** M59

## 1. Introduction

The term "fatigue" is used for a long time in physiology, psychology, occupational health and sport, ergonomics, engineering psychology, medicine and other scientific fields. It has different meanings in terms of the underlying etymology, regulating mechanisms of the nature of professional activity, etc. It requires a wide circle of questions about the occurrence, development and its effects in extreme social and physiological individual cases. It is noted that the literature is not separating clearly the definition of "fatigue" and "super tired", "physical and mental fatigue", "psychological fatigue and burning", "professional fatigue", etc., which makes it more difficult to study them in the complex domain of physiological and psychological science.

The condition of fatigue not only gained great importance in science, but has become a concept that reflects the consequences of the human body and mind in different branches of its activity: sports, physical, intellectual, and communicative labour and other forms of activity.

## 2. Interconnections of categories "work capacity" and "fatigue"

In psychology and physiology of labour the "work capacity" and "fatigue" are viewed from the standpoint of working capacity that is determined by the degree of training, psychological and physiological state of professional functions, directing personality in work performance, may not coincide fully with the requirements of a specific activity, the possibility to achieve the efficacy of time (productive).

In such cases the fatigue will develop faster and more intensively. Conversely, the development of fatigue is accompanied by functional depletion of body and mind, leads to deterioration of work capacity, which is manifested in increase of body functions tension, decrease of functional capacity of man and therefore reduction of effectiveness.

Complicated interference between work capacity and fatigue is reflected in particular in the work before the end of the day, due to fatigue development can be determined a brief increase of work capacity, increase of work efficiency as a result of the additional efforts of human in mobilizing its functional resources, called the "last push".

The interference character of fatigue and work ability index is determined by a number of individual characteristics of the concrete specialist (professional, psychological, physiological, etc.), among which, in particular, is indicated a subjective assessment of their condition and success tasks (Ieh, Wickens,

1988). Fatigue often means a temporary decrease in work capacity under the influence of task - her way, intensity, impact and recovery.

But reduction of work capacity is not only a symptom of fatigue, but also other functional states: monotony, mental saturation and decrease, overheating (super cooling, hunger and burning oxygen (hypoxia)), etc. If fatigue can be characterized as a "normal reaction, linked to increased blood work for a long time work" (Leonova, 1984), then other states are often the result of an activity or oversteering unilateral influence of extreme emotional or the environment. The unique direction of changes in working conditions in these events does not reflect their identity, but they differ in the ways and dynamics of tension by subjective reactions, the behaviour of character work. After Leonova, for dullness are characteristic lower overall activity, development of the human state of drowsiness, "removal" of the process activity, mental saturation state is accompanied by the development of complex emotional care. Increased fatigue is accompanied by increased blood functions, lower accuracy and speed psychomotor reactions, violations of the stability functions of attention, functional exhaustion of body reserves.

Interference of notions work capacity and fatigue define some weight in their determination about that they are reflected in two aspects - namely internal and external resources mobilization of body function and performance of work productivity. Both aspects have both notions - the effectiveness that proves the "useful activity coefficient" of the body. But efficiency and work capacity are not the same. Effectiveness is a parameter that can be appreciated at any level of load, while the ability to work as its nature is related to potential or functional capabilities of the body.

Functional capabilities of body and mind to do something concrete can be determined as a way of manifestation (appearance) of straining the maximum level of functions that provide workload (potential capabilities), and appreciation towards the previous level of functional tension (operational possibilities); in the first case it's the highest level of work capacity, and in the second - about the appropriate level of previous requirements. Related to this, some authors determine the concept of work capacity as an extreme functional capacity of man to perform a well determined task (Measiscev, 1935; Leman, 1967; Iliun, 1968; Rosenblatt, 1975; etc.); taking into account previous work capacity, other researchers since determined as an opportunity to achieve and sustain the working level for an adequate and stable functional level of functional tension in terms of standardization requirements as intensity and duration of the task (Kosilov, 1965; Striukov, Grishevskii, 1973; etc.).

Work capacity and fatigue are characterized by internal events, which reflect the level of expression and violations, as well as internal processes that determine the essence of these manifestations of work activity, training and control features of development and manifestation. For a quantitative characterization of work ability are used quantitative and qualitative indicators of labour, durability, productivity, ie. the actual work. These indices allow us to appreciate the ability of those who work directly, fulfil concrete work tasks. But forecasting such work capacity until the beginning or during the professional activity is required to use its physiological and psychological evidence indices.

Physiological aspects of physical work capacity are PWC170, PWC150 (power of work, where the foreshortening reach 170 and 150 beats (pulse) per minute), maximum aerobic power of work, maximum use of oxygen, etc. (Zagreadskii, Sulimo-Samuillo, 1982; Navakatean, 1984). Intellectual work capacity is assessed using a rich complex of psychomotor tests that characterize the important qualities such as professional reception, attention, memory, reasoning, psychomotor, etc. and study the individual characteristics (motivational, temperamental, emotional - volitional). The choice of methods and indicators are based on specific type of intellectual work by relying on professional-frontier researches (Platonov, 1970; Egarov and Zeagradskii, 1973; etc.).

So the work capacity and fatigue presents itself similar notions. The working capacity is conditioned by the absence or presence of fatigue, which in turn is characterized by the development and manifestation of this state. On the other hand the speed and rate of fatigue development in the professional activity is determined by the working capacity of man.

### **3. Determination and content of the notion "work capacity"**

In line with the contemporary visions in psychology and physiology of man's work must be investigated as a system of attributes, which are formed as a result of including the human into activity, manifests and appreciates of work. The work capacity is determined by total internal interference of characteristics, human qualities and external factors, business skills. The character of system of this attribute correspond to regulation of Lomov about "different order" of human qualities and the need to highlight the system of attributes reflecting individual membership of the system determined (Lomov, 1984).



In psychology and physiology of labour is a widespread notion, and also more indefinite that "work capacity of man". There are a whole series of tests of this notion, analysis of which is given in one series of works (Egorov, Zagreadskii, 1973; Bodrov, 1983, 1987; Rudnai, Bodrov, 1983; Alisev, Egorov, 1984; Popov, 1985; etc.).

Analyzing the concept of "work capacity", Averianov with co-authors (1993) notes that the publication in four volumes on human physiology (Smith, Teva, 1986) gives the following determination - this is "the body's ability to respond to difficulties and to meet so anything" (Smith, Teva, 1986, Vol.4). The work capacity depends on the body condition, training and inclination to give it ("the talent"). In the "Dictionary of physiology" is given the following wording: "work capacity - human potential capacity during a fixed time and efficiency due to meet a large number of works up" (Dictionary of physiology, 1987).

Different authors determined that the concept of work capacity as "the capacity or ability to perform productive work for a long period" (Kosilov, 1965, 1979), "the maximum work that man can fulfil" (Leman, 1967), "the state of body systems, preparing to show its full potential" (Iliin, 1968), "the size of human functional capacity characterized by a potential amount of human labour to perform work during a time assigned with received efficacy" (Medvedev, 1977), "the maximum capacity to perform quality work in a determined and motivated high tension of the body, which still results in pre-pathological changes, rather the oversteering and over fatigue" (Navakotikean, 1984), etc.

Stinkov and Crisceavskii (1973) thought that is rational to study the ability to work, as a forecasting category taking in consideration human working capabilities in time. It is about „current work capacity”, better to say, is about appreciation of body condition at the moment in link with the length, weight, tension, work performed and work direction character.

Most authors investigate the ability to work, as a human trait, which reflects the ability to achieve something concrete, while others identify this notion with the body's functional status. Others characterize the ability to work as a property in order to ensure a given level of labour efficiency, and some - the maximum possibility of body parameters related to intensity and duration of labour. Under this concept is understood also as potential of the body, its capacities to carry out specified work and concrete results. Identification is often observed, changing the term „work capacity”, „functional state” and „systems and body functioning”.

Egorov and Zagreadskii (1973) redistributed the concept into 2 groups. First group included determination that characterized their work capacity in terms of „functional capabilities of the human body”. Group 2 was characterized to determine understanding of „productivity”, i.e. the number of production in a unit of time, while carrying out work on „the power of data”. The authors correctly stated that the content of determination characterizes also the features ways of assessing the work ability: the first group is to determine the most appropriate methods of functional diagnostics, and 2 to index the entry method of effective and quality activities.

Generalizing different views, Averianov and co-authors (1993) found that understanding the notion of "work capacity" must reflect the following sides of the event studied:

Maximum possibilities (extreme boundary) of "the body to perform a specific activity".

Physiological cost of work or price that the body must pay for the opportunity to fulfil a specific activity.

Enabled capabilities, providing the exit from state of tranquillity at a necessary level for mobilization functions.

Some special tracks coming from work as physiological changes of the body which determines the reduction of capacities to given work during the period required for work activity.

These requirements, according to the authors, respond fully to determination of working capacity of the largest reserves of human functioning, which with no damage to health can, under a high motivational level, be achieved in a specified volume of work with expected quality (Averianov, 1993).

The authors often precisely and completely described the basic characteristics of the concept of work capacity. But they did not mention that along with maximum work capacity (limit capacity of the body) is characteristic and transient (short-term, daily) and long-term work capacity, and its dynamics is related not only to maximum capacities, by also by the previous capacities of the psyche and body. In the listing presented are mixed rules, reflecting the competitive components of this concept (body capacity), "to achieve something concrete" etc., and components on which work capacity put pressure ("physiological cost of work, capacity activation, remote consequences, functional reserves of the body", etc.). In our view, determining the term "work capacity" should reflect a general form, to find basic symptoms of the features of the work subject, the determination must already commented out in terms of characteristics of conditions, which open its content.

Work capacity specific concept is based on the fact that is permanently concrete as work in the process in which is manifested the work capacity. In the physiology of exercise domain, such a point of view supports Farfel (1946, 1969), Volkov (1974, 1994), Zimkin with co-authors (1955), Borilkevici (1984). As a theoretical basis of these concepts can serve functional systems theory of Anohin (1973, 1975) who sustain that the body, depending on the purpose of the activity (outcome of the system), is able to form specific functional operating system that allows achieving this goal. The body is not isolated and dynamics of functional systems and training of the individual components (anatomical, physiological, etc.) occur during specific decision tasks. After Anohin, the system can be called only that chosen complex components, interference and reciprocity that becomes interference for gaining the focused result. Appreciated by such understanding of the physical phenomenon, work capacity theory can be estimated in its many hierarchical structures (Israel, 1978), according to which the specific work capacity consists of a series of constructive elements, organized for a specific task. In connection with this, it may be said that the man has a chosen work capacity, with determined boundaries, whose range is possible to determine with the potential fenogenotopic capabilities.

Therefore, it can be concluded that work capacity always shows the specific nature of the work and the final result. It is natural to assume that more close are business types; the functional systems are more suitable for their achievement. But how similar would they be, physiological and psychological characteristics of comparable types of activity, how much would they're components be similar structurally (first of all functional components of the subject structure after work), organization specific systems function will always have specific differences, sometimes very thin (small), manifested in the activity level of interference functions.

Psycho-physiological basis of human work activity is the functional capacity of the body and mind to form and to ensure its utility operations and necessary results. In work, man expresses his capacity characteristics: work capacity, labour power and capacity to action. The work capacity is determined by the human social, medical, psychological, physical possibilities to take some work, to be able to train and work with performance in any sphere of professional work. The power to work characterizes the human body and mind possibilities to form an appropriate activity. Psychologically any business opportunity in itself represents functional systems, which are present in the composition and program of work to the result gained. Any appropriate activity requires well-defined purpose - to carry out specific activities and to get concrete results that meet the purpose. Labour power determines what is specific for the given functional system, but not just any, reflects the quality of man's labour activity. Achieving a determined appropriate activity is ensured the ability to perform activities, which is work capacity. Without activation of the work capacity any appropriate form of activity remains to functional system, ready to provide potential to human work. That is why in psychology and physiology of work the capacity work is the central concept, the scientific basis for decision of scientific practical questions.

The term "work capacity" is different from the concept of "labour power", which characterizes the human capacity to perform a quality work and with determined volume by taking account of its health. The difference between these two concepts is determined by confronting the category "labour" as a social phenomenon, which reflects a broad spectrum of specific activity, and "work" as a biological phenomenon, which reflects the determined type of a type of activity to a specific person. After Polejaev and Macushin (1974), the work capacity of the body physiologically speaking is the ability to work, namely to reform some kind of energy to another, performing one or another "unit" function (nerve cell, muscle, etc.). This quality creates the power that moves the body - a process of challenge, energy and chemical reactions. The work capacity enables fulfilling the activities of one or other functional "unit" and forms a quantitative expression of the result of this activity. The work capacity finally determines quantitative characteristics of human work.

Man, working, may have a different initial work capacity. An important factor influencing the work capacity level is motivation, ie. all material and moral incentives which during work activity confronts his specific purposes. In the theory of functional system, the material purpose of these activities is the physiological and psychological contribution – acceptor of the result of activity. It has an important number of features that explain why the motivation in labour significantly influences the final level of human work capacity.

The purpose is the exceeded manifest (reflection) of the reality, which is why acceptance of activity as physiological unit is formed before starting work for its realization. On the one hand, this device determines the way of activity by which it can be realized the goal. But on the other hand, the acceptor of the output is the source of influences that promotes the active functional system at a given level of work capacity - maximum, optimum or minimum depending on the level and type of motivation.

In addition to motivation, on the initial size of work capacity influences the workers age, level of training, health, character and intensity of future activity, working and resting conditions, the presence of unfavourable external environmental factors and other factors.

Navakotikean with co-authors (1987) based on Anohin (1975) own research and data have proposed the following scheme of argumentation of work capacity under the influence of the task. The working strain, which is formed in concrete situations, is determined, on the one hand, by the outside working tension, and on the other hand – by the functional status of the argument, presented in that moment, formed because of the previous state and state that will be created as a result of the future activity, and the level of functional resources of the body. The operating voltage systematized by the influence of external factors on the body, so its internal state includes the history and changes regulated by the accepted mechanism of the output. Strain from work (labour) is a mobile feature, dependent largely on labour momentary tensions and functional state of the body. Fatigue, whose occurrence is related to the level of functional and energy reserves, is a more energetic characteristic. High plasticity and stability of biological systems are provided on account of duplication or organization. Its adapted defence reactions are realised through mobilization of functional reserves of all systems in account of directed centralized leadership. It can be assumed that such centralization of management is manifested also when develops the fatigue, because namely in this case for the body is necessary to achieve the expenditure of functional and energy resources. It was found that the higher the structural - functional level of the organized system, the lower is the frequency of the hierarchical system. Perhaps the evolution of fatigue must be accompanied by a decrease in frequency of physiological processes and psychological insecurity in the body.

The basis for slowing down this frequency in the deepening of fatigue and her passing in over fatigue, according to Navakotikean et al., is the braking guard of nerve cells necessary to protect the body from loads. Such braking of cells, that are in different parts of the nervous system and therefore bring different functional tasks, can lead to desincronisation of physiological and psychological processes of the body.

The analysis of existing presentations about the notion of work capacity, and the research experience of operators' activity gives the possibility to study the characteristics of work capacity as a basis of human socio-biological capacities, reflecting its qualities to fulfil something concrete during the time reserved with an effective maximum or normal functional and functional resources level (Bodrov, 1983, 1987).

Is necessary the differentiation of determining the work capacity for a specific act, and to determine its duration and conditions of realisation, man can have a high work capacity in a specific type of activity and its own state of professionalism in professional and functional formation and not to be capable enough to work in that sphere of labour. He can show the necessary levels of work capacity in a work process or own power distribution on a longer working live. Some activity or other extreme conditions of some people cause decreased work capacity, and others manifest in such conditions a high level of stability.

The work capacity of man and the degree of stability is determined by all professional components, psychological and physiological, reflecting the most basic features of the subject of activity:

- a) Experience and training - the level of development, plasticity, stability, special knowledge, skills, abilities;
- b) Personal inclinations of the specialist - the character and level of the requirements, tasks and business reasons;
- c) Functional status of body and size of capacity reserves, body condition, presence of fatigue (over fatigue), psycho - nervous strain, "heavy" mental states, etc. In addition, work capacity, in particular its dynamics, depends on the individual psychological, physiological, physical characteristics of the subject of activity, also engineer - psychological, psycho-physiological, anthropometric, hygienic and other qualities of the object content (means, structures), conditions and organization of work.

The term "work capacity" is used, usually, in connection with a fixed, concrete activity. This finds expression in individual assessments of the way work. But in many cases this understanding is used in a general form, non-specific (eg. intellectual or physical work capacity, work capacity at operators, etc.). Using the term "work capacity" in the sense of phrase (several words) does not allow to found something concrete, to reflect the content of activity, her professional indications, methods of assessment and ways of raising the work capacity. Also remains questionable the proper use of (correct) notion of "speculators work capacity (motor)", because the work capacity category is an integrated attribute of the

subject of the activity. If we use the term “work capacity” in connection with the characterization of a system (body), as law, consider the process parameters, status and results (evidence) of their operation, which is why more accurate would be the use of notions as “dynamics and the functional status of the systems (organ)”, “effectiveness and quality of functions realisation after appropriate indexes”.

Given the longevity factors of work capacity manifestation of a given level, they may differ as long lasting and effective. This distinction is determined by:

- a) The common or current functional status;
- b) Targeting towards some kind of professional activity in the broad sense of the word, rather, in a stable form of reasons, interests, needs or even target of a specific work task;
- c) Stable level of training to achieve a specific work activity or high professional training, in realisation of specific professional tasks in a certain time.

“Work capacity” understanding should be considered from two perspectives. On the one hand, is the presence of the level over a period of time. In practical researches and assessment of a specific level of activity that is the basic feature of the work capacity and the quality of functional psychophysical and physiological cost index activity, mainly from the work. The work capacity, achieved under defined conditions, usually is studied as extended features, better said the opportunities to perform such work under the same conditions with analogue effectiveness.

On the other hand, the term “work capacity” is the psychological derived category of “capacity” and in this plan it means the human potential ability to perform a specific job with determined efficiency and quality. In this case at the base of the work capacity concept is made all the psychological, physiological and other human conditions for successful build and develop qualities that determine the experience and training to achieve a concrete thing. Such clues of work capacity must demonstrate not only the effectiveness and quality of work, but first, dynamic development, professional development of important psychological and physiological functions of the body.

Such an understanding of work capacity is close enough to determine what Alishev and Egorov (1984) proposed: a feature with “functional level of training the body to carry out (or continue) a specific activity that occurs under practical conditions of life, regime, longevity, efficiency, stability, etc. Manifestations of such training are: the original (and current) system status indicators and body functions, which form the structure of psycho-physiological activity” (Alishev, Egorov, 1984).

The work capacity level is manifested in a complex of measures of effectiveness (productivity, efficiency) and quality of professional activity, also the functional reactions of the body and subjective statement. Although professional indications are undoubtedly the criteria of work capacity presence level, the functional indices reflect the psychological and physiological “cost” of the activity and characterize the potential of the body in achieving a determined efficacy level.

#### **4. Dynamics of work capacity**

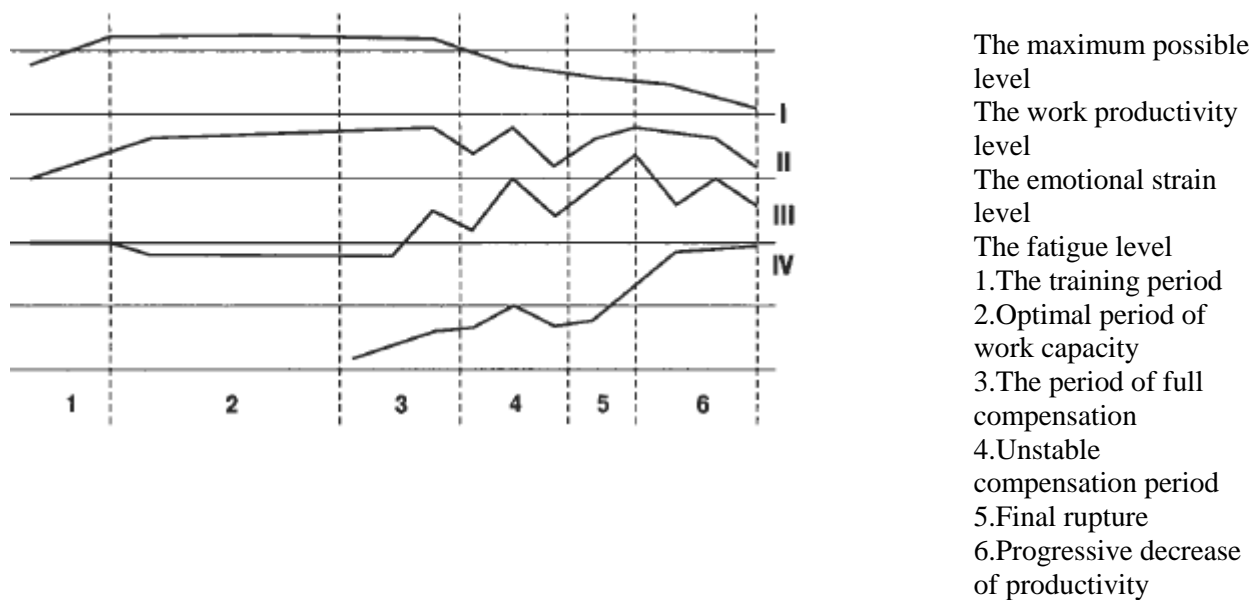
One of the characteristics of work capacity is “work incentive” reflecting the operational growth on a continuous time (shift, watch) in professional and psycho-physiological indicators at different stages and phases of its manifestation.

Dynamics of work capacity was analyzed for the first time by Krepelin (1898) who used the term “fake work”. If the first work capacity attempts was characterized only the external indices of results (Ananiev, 1968; Cameron, 1974), then in contemporary researches it is described in terms of adaptation of body conditions and professional - motivational factors (Kosilov, 1965; Leonova, 1984; Navakotikean, 1993; etc.).

Despite the diversity of proposed descriptions of this dependence (Dereveanko, 1979; Hogan, Schelton, 1998; etc.) as usually, are presented some general, more typical levels: optimal processing of work capacity, a full compensation, unstable compensation, final breaks, and progressive decrease in productivity (Figure no. 1). Their longevity and level of expressionism is determined by the influence of many factors (difficulty and strain of work, the influence of unfavourable factors of environment, health, work, etc.) and can vary up to drop some of them (Medvedev, 1970; Leonova, 1984; Navakotikean, 1993; etc.).

Complex assessment of work capacity state and its relation with development of fatigue leads to the index, reflecting the dynamics of functional possibilities of the body, business productivity, emotional – volitional tension and fatigue. The maximum possibilities of the body depend on its state, functional training, work experience, the trend towards their work. Business productivity is conditioned, on the one hand, by the maximum possibilities of the body to carry out the work given, on the other hand - the emotional - volitional voltage regulating the use of functional reserves of the body. Emotional - volitional

tense depends on individual physical features, attitude towards work, and importance of its social responsibility. Fatigue as a violation of the functional state is characterized by decrease of reserve of body and mind, which manifests itself in a worsening series of objective and subjective indices.



**Figure 1: Dynamic stages of work capacity**  
**Source: Dereveanko, 1979**

In the proposed literature (Dereveanko, 1957; Medvedev, 1970; Navakotikean, 1984; etc.), and data received in their research output (Bodrov, 1969, 1983) have been determined the following levels and stages of work capacity:

I. Preparatory - is related to the training objectives of achieving a concrete thing, adding (updating) the necessary information regarding the content, conditions and organization of a concrete work, mobilizing the body and mind to ensure the successful fulfilment of the work, stating the production process.

II. Production or increasing level of work capacity. Gradual entry of man into actual productive work takes place because they have a significant influence on various secondary factors, which were held until the end of exchange, shift. During this work, the habits are unstable, weak, inert, accompanied only by activities and operations. Then following the exercises during the work, the technical and economic indices reach the maximum level.

This state includes several phases of formation:

a) The mobilization phase characterizes the stage of involvement in the activity: increases the exchange processes, increases the tone (degree of vitality), strengthens the activity of the cardiovascular system, rises the central nervous system tone, hinders the activity of the digestion, takes place focus, begins to dominate the business reasons for working;

b) Phase of initial reaction may occur immediately after beginning work and is characterized by worsening indices of time and precision of activity (the experienced and trained people are usually missing);

c) Hyper-compensation phase is characterized by the nature of the optimum activity. At this stage the worker is not stable, there is an increase in deliberate and conscious errors, usually the energy costs pass the optimal importance, and the worker's movements are less accurate, than the best.

III. Work capacity stability phase (phase of compensation) - a stable work capacity at a high professional level, it's up to raise the technical and economic indices, which appear in the first stage; the basic functional system gains importance and dominant ability of stability, is characteristic the stability of maximum importance of technical-economic indices (usually - "paid") and the appropriate optimal importance of energy expenditure of human; the working reactions are fixed, correspond to the required rate, is targeted an established activation of memory attention; information processing is in accordance with the body requirements of precise determination of tasks, labour productivity and its efficiency is maximum.

V. Phase of fatigue develops. The technical-economic indices start to decrease, and increases the functional tension, worsens the neurophysiologic and psychological conflict between basic functional systems and recovery. At this stage distinguish several stages of work capacity:

a) Compensation phase, characterized by decrease of work capacity as a result of fatigue development in the central nervous system and worsening the energetic balance, specific requirements are violated in the appropriate energy decrease energy expenditure, and appropriate energy reactions changes with some less useful (eg. blood effort in strengthening the muscles which not only decrease heart rate and thickening), decreases less the focus, no changes in the higher mental functions virtually stage, for this phase is characteristic alternation of long periods of stability, gradually changes to a number of indices, labour productivity remains high, but its effectiveness decreases;

b) Decomposition phase is characterized by gradually worsening the work capacity, visibly reduces the energy supply of the activity, alter the motivational characteristics of the character of work - begins to dominate the reasons for going into business, its conclusion, worsen the climate social-psychological parameters of the collective, sudden increases the number of quantitative and qualitative errors, productivity decreases. Usually this phase of activity is interrupted, as it can go in breaking pre-pathological stage, where there is a breakdown of body functions. If completion of the work coincides with the end stages of under and early decomposition phase, the other can be seen breaking the final phase, understood as a temporary mobilization of all body reserves with the sudden increase in labour productivity.

Fatigue status at the time of work termination may be compensated for a short period on account of the urgent mobilization of reserves motivational sphere, which is accompanied by raising the work capacity (final fracture stage).

For the over fatigue state are characteristic violations of flow and exchange of the typical work capacity phase. Usually already at the start of the activity the work capacity's initial level suddenly decreases and the activity occurs in the compensation phase.

Short duration of the passage of separate phases, showing their characteristic reactions and even exclusion of some stages can vary to an important extent depending on the kind of work, the training of specialists, its individual peculiarities, status of health and other factors.

Violations of functional status in the result of intensive and long lasting professional activity, characteristic for fatigue after work, is normalised and restored.

Fatigue factors as stimulator of recovery processes and practice have been dedicated to a large number of investigations. One of the first researches of this kind have done by Folibart (1955) and his students. It was found that the more manifested the fatigue, the greater the speed of recovery process. But in this case often is overlooked that, not taking into account the speeding recovery, if fatigue increases, duration increases. Regarding the influence of fatigue on the level of training, there are enough data testifying that high duties, which lead to manifestation of fatigue, provide training of the body. But in concrete cases it is necessary to decide what worsening level of training is appropriate for some people or contingent necessary to achieve something concrete and full vital activities during the life span.

Depending on the development particularities in business process and manifestation of fatigue in rehabilitation process, their duration and character have some peculiarities. There are the following rehabilitation processes:

- A passing rehabilitation in the work process especially when changing from one kind of activity to another;
- Urgent rehabilitation observed especially after work;
- Abandoned rehabilitation (left), which takes place over several hours after the end of work.

A more importance in determination of activity regulating questions has the outcomes of abandoned rehabilitation assessment of psycho - physiological functions, characterized by curl leakage. Manifests and duration of these curling processes depend on the size of the task, the performance of work, functional state. So, for example, after the day flight (9-15 hours) to aviators the time the rehabilitation has two kinds of strong values: first - the maximum change of physiological indices are observed after 3-6 hours after the flight, the second - after sleeping the night the next day. After long flights (18-24 hours), the recovery processes passes after a single wave model closely with maximum change of the physiological indices at about 9:00 am. These features of working hours and rest are for prevention of fatigue aggregation.

The event of fatigue is closely related to present work capacity phases. Work capacity stations and functions can be characterized as response changes of the body to the requirements before the character of the work. Navakotikean (1995) believes that these changes are formed under the influence of two basic

processes. It occurs mainly by activating the central nervous system as a result of raising limbic-reticular systems and adjustment of the vegetative nervous and endocrine system, which increases the current work capacity due to the effectiveness of all functional rings system. As fatigue develops it decreases the functional reserve, which is the restraint system from excessive spending. Therefore are seen in the work, changes the work efficiency, the correlation of psycho - physiological manifestations of work capacity is integrated, especially these two processes. Their results may be raising or lowering the prevalence of work capacity current dependence of the processes mentioned above. After the phase of full compensation comes a decrease in functional reserves and the body moves to a less favourable type of reaction energy. During this time, the objective symptoms of fatigue are maximized, but it can occur at the worker as a fatigue symptom. The volitional efforts, fatigue is compensated, is made by including in work the nerve centres and synergistic muscles, and physiological inputs of sections vegetative nervous system and hormonal activity, that ensures activation human processes.

In the concrete conditions of production activity or while carrying an extreme current, close work capacity, does not always have a typical form. Duration, alternation and the level of manifested periods are determined by the influence of multiple factors and can vary up to complete collapse. This is why a satisfactory appraisal of work capacity and fatigue must take into account the effectiveness of work, state of mental and physiological functions, subjective data.

Fatigue and work capacity are closely related. Determined level of work capacity, the state of those behaviours that determine this notion; professional status of important psychiatric and physiological functions, training towards specific work with a specific goal of productivity and quality and then the fatigue process will grow more intense and have more types and vice versa, development of fatigue leads to division of work capacity, which is manifested in decrease of functional possibilities of the body and mind, reflected as the breach of the activity effectiveness.

Analysis of literature data and own research results allowed Navakotikean (1984) to propose a mathematical conceptual model where are reflected foundations interference of work capacity (P) and fatigue (I) with the effectiveness of work (e), nature of work performed including its goals (W), productive (production) environment conditions (C), state of physiological systems, that fulfil directly the work activity, which he mark it as a state of information system (j), the system status of limbic - cross linking activation or subsystems to ensure energy (E), and subsystem motivation (M).

The basic formula looks like this:

$$e=W*c*j*E*M \quad (1)$$

where all indices express relative units.

They are equal to units in the case of optimal importance C, E, M. Disorder of options does not change many times the size of indexes, each time it changes the work efficiency.

The real work capacity (P) is estimated by physiological and production indices while carrying a concrete thing (W) under optimum conditions:

$$P=emx=W*C0*Imx*E0*M0 \quad (2)$$

where index (mx) and (0) is maximal and optimal importance function.

Besides this C changes, between two points in time (t1, t2), caused by work, reflect the fatigue (its level (Y)):

$$Y=P_{t1}-P_{t2} \quad (3)$$

Because we cannot always achieve optimal working conditions, motivation and activation, to appreciate fatigue should be used indices C and I, received in case of stable levels of employment conditions and activate the body. Such indices of fatigue unlike the real ones (Y), is appropriate to register that the standard indicators id noted with index "s":

$$Y=P_{st1}-P_{st2} \quad (4)$$

$$P_s=e_{max}=W_s*C_s*I_{max}*E_s*M_s \quad (5)$$

Compliance with these conditions is not easy, but if no standard conditions, the fatigue and work capacity indicators are random sizes, which may not reflect changes in work capacity and fatigue.

Mutual reactions between the work capacity and fatigue are simple, which proves that raising labour efficiency before the end of working hours ("final break") or can actively and productively handle other interests after a hard day of work.

It is known many methodologies and indicators for assessing work capacity, which determined the need of classification to research and practical decision tasks (Rojdestenskaia, 1965; Zagreadskii, Egorov, 1973; Rosenblatt, 1975; Sopov, Solodkov, 1980, Kudrin and others, 1981). For diagnosis of pilots work capacity level was developed a classification (Bodrov, 1983, 1987), according to which all indexes (properly and methodically) subdivide in direct (work) and indirect (functional).

Direct indices characterize the efficacy and safety of professional duties or functions and operations. On his return, direct indices of work capacity are further subdivided into indices of performance of the real professional tasks and so-called work tests, rather, standardized by volume, time and conditions for performing the tasks, presenting themselves, as content, some real elements of work activities (eg. tracking tests, checking information from aboard photo layouts, receiving and sending Morse code, etc.).

Work capacity indirect indices are divided into current indices of functional state of the body and reserves of its possibilities. The first may be objective registered in the state of tranquillity or activity process by means of physiological, psychological, biochemical measures (dimensions) and other measures and subjectively, by means of conversation, surveys performance, interviewees, etc. Reserve indices of body possibilities determines in the process of functional tasks, that characterize their evidence, primarily, the level of tension and clearing capabilities of various body systems by additional tasks due to core activity, introduction of technology refusal during tasks fulfilment in training.

The given classification determines the basic methodological procedures and evidence, which use allows objectively and fully determination of tasks to study and diagnosis of work capacity level based on regulation on the essence of category data.

Presentation of ideas about triple composition of the structure and content category of "work capacity" determines the ways and means of raising them or supports a specific level. This task is possible, primarily, by improving the quality of individual professional, second, trend development of participation in a profession working under concrete objectives for the successful fulfilment of a specific task, in the third - leadership, correcting functional status, in particular, prevention, development of fatigue and restore of normal state.

Multiple studies have found that short-term reduction of work capacity may be subject to a number of functional violations in the body. They relate to disease status and expression of the remaining functional disturbance caused by the influence of unfavourable factors of life, fatigue and over-fatigue, psycho-nervous tension and a series of mental states, such as dominant, drowsiness, mental demobilization, early euphoria, phobia, etc.

## **5. Conclusions**

Peculiarities of any activity, the purpose, content and product of labour, with labour issue, determine the professional features of the employee, reflecting the specific of the activity, in particular, characterizing the fusion of subject and occupation, the individuality of the activity, individuality and safety, and others. Among the various functional states of the man, work related, such as stress, boredom, etc., a special place is the fatigue in response to loading of each activity. Any occupation that requires effort is indispensable to fatigue, leading to reduction of the ability to work. Fatigue is a criterion for determining the level of validity (capacity and efficiency of work) of the individual. It is used extensively in the work process standardization and regulation, professional training and assessment of the work process, optimization of human interdependence and technology, design of functional activity taking account of its functional capabilities. Fatigue is a component in the complex system of life, leading to physiological and psychological adjustment of the body for the professional activity.

## **6. References**

- Бодров В.А. (2009), Профессиональное утомление: Фундаментальные и прикладные проблемы, Институт психологии РАН  
Lefter V., Manolescu A., Deaconu A. (2010), Ergonomie, Editura Economică  
Манусевич Ю.П., Рунге В.Ф. (2009), Эргономика в дизайне среды, Архитектура-С



# EVOLUTION OF MAIN STATISTICAL INDICATORS THAT CHARACTERIZE ANIMAL PRODUCTION AT COUNTY LEVEL TELEORMAN FOR THE PERIOD 2000-2009

**MARA Florica**

*PhD.Student , Faculty of Management, Economic Engineering in Agriculture and Rural Development,  
University of Agricultural Sciences Veterinary Medicine Bucharest , Teleorman , Romania,  
E-mail: maraflorica@yahoo.com*

**NECULA Raluca**

*PhD.Student, Faculty of Management, Economic Engineering in Agriculture and Rural Development ,  
University of Agricultural Sciences Veterinary Medicine Bucharest, Bucharest, Romania  
E-mail: raluca\_nec@yahoo.com*

**Abstract:** *Knowing the evolution of the main statistical indicators that characterize farm animal production has an important role in the development of strategies in the county agriculture. Rates of growth, the likelihood of these rhythms and amplitude oscillations for different probabilities can be the defining elements in drawing up plans to ensure a certain amount of animal products. Statistical indicators allow comparison with other countries to be able to find ways to increase production to highest possible level our country can achieve.*

**Key words:** livestock , average productions , the mean square deviation , standard deviation, coefficient of variation.

**JEL classification:** Q - Agricultural and Natural Resource Economics; Environmental and Ecological Economics; Q19 - Other

## 1. Introduction

Meat consumption and milk products have increased four times in the last four decades, and the World Bank believes it will increase by another 50% until 2020. There are already twice more chickens than people on the planet, 1 billion pigs, 1.4 billion cattle and 1.8 million sheep that eat more food than they produce. (Cheran , 2009)

Meat consumption is expected to increase from 87.4 kg / capita in 2004 to about 89 kg in 2012. Pork, with nearly 50%, is by far the favorite of consumers in the EU, followed by poultry, with an increase of 27%, and has surpassed beef and veal since 1996. Milk production in EU-25 is expected to increase slightly in the medium term, with the increase of the quotas, until it achieves the level of 145 million tons in 2012. Milk production in the new Member States, covering about 15% of total EU production is estimated to remain stable, around 22 million tons (Bursa Agricola , 2005-2012).

The pace of expansion of world trade in meat could reach over the next decade the level of 2.5% per year. Brazil will be the main beneficiary of booming exports of meat, by the end of the next decade reaching a market share of 30% of total world meat exports. United States will be also found, among the countries with an increase in the market share of exports. Russia remains the largest net importer of meat of OECD countries, followed by Japan.

In general it is considered that the meat market will not evolve in the next decade as spectacularly in terms of prices, as well as the milk market or the cereals. Only the chicken has known in 2007 a faster rate of price increase (+20 %). For the next ten years, estimates show a moderate expansion of prices by approximately 18-20 percent for beef and the chicken and 19-24 % for the pork, compared with the average of the last decade.

Forecasts also indicate a decline in the share of OECD countries in the production and worldwide export, and in many agricultural goods until 2016(Comission Communication). Even if these States will increase their share of the world production of wheat, as far as the oilseeds, milk, beef, pork and poultry, the report of the European Commission forecasts a considerable reduction of this share.

This will have as an effect an increase in both South - South (developing countries) trade, as well as an increase in exports, from the developing countries to developed countries.

## 2. Materials and Methods

In this analysis we used the following indicators: arithmetic average mobile, the mean square deviation, standard deviation, coefficient of variation, confidence limits for a given risk, average annual growth rate, amplitude confidence limits for a given risk compared to average and the statistical

significance of these indicators. We used the following data: Romanian Statistical Yearbook and Statistical Yearbook Teleorman County.

The formulas used (Ceapoiu , 1968; Demographic growth art.):

For the arithmetic average =  $\bar{x} = \frac{\sum xi}{n}$  , in which,

$\bar{x}$  = the arithmetic average mobile, Xi = average production values on a number of years (i) n = number of years taken into consideration

For average annual growth rate =  $r_{2000-2009} = \sqrt[n]{\bar{O} p1 / p0} - 1$ , where:

R2000-2009 = annual average growth rate,  $\Pi p1/p0$  = indicators of the interlocked growth

For standard deviation =  $\hat{\sigma} = \sqrt{\frac{\sum(\bar{x} - xi)^2}{n}}$  , where:

$\hat{\sigma}$  = Standard deviation; xi = average production values on a number of years

n = number of years taken into consideration

For the mean square deviation =  $\hat{\sigma}_x = \sqrt{\frac{\sum(\bar{x} - xi)^2}{(n-1)}}$  , where:

$\hat{\sigma}_x$  = mean square deviation, confidence limits for certain levels of risk =  $\bar{x} \pm \hat{\sigma}_x * tp$  , where tp = tabular values based on probability and number of observations (in this case the number of years).

For confidence limits for a given risk X  $\pm \hat{\sigma}_x * tp$ , in which:

X = the arithmetic average, mean square deviation; tp = tabular value for the transgression probability (risk)

Oscillation amplitude of the confidence limits=  $((X + \hat{\sigma}_x * tp - X - \hat{\sigma}_x * tp) / (X)) * 100$ .

For the coefficient of variation =  $C = \frac{\hat{\sigma}}{\bar{X}} * 100$  , where: C - coefficient of variation (expressed as percentage)

The coefficient of variation can be: between 0-10% - low variation, between 10-20% - middle variation, over 20% - big variation.

### 3. Results

Teleorman County Livestock evolution over the 2000-2009 period is as follows (Table 1) : there is a tendency to decrease the heads of cattle at a rate of -1.45% from 60000 heads in year 2000 to 53000 heads in 2009. The same downward trend is noticed in cows and heifers at the same annual rate of -0.76% at the county level. Pig livestock has a annual growth rate of -1.99% in the Teleorman county, this is due to the deacresing flocks and the oscillations from year to year.

So if in the year 2005 the pig population was 225,400 heads, in the year 2009 it was 121000 heads. We have a decrease in the livestock of breeding sows from 12,000 heads in the year 2000 to 5000 heads in the year 2009. (-9,84 % ).

**Table 1. Evolution of livestock in the county Teleorman, during 2000-2009**

Species/ Category	UM	Years					Med/ Rhythm
		2000	2003	2005	2007	2009	
<b>Cattle</b>	Thousands heads	60	53.8	53.3	59.2	53	55
	%		1.00	1.01	1.12	0.93	-1.45
<b>Of which cows and heifers</b>	Thousands heads	43	38.7	40.5	42.6	40	40
	%		0.99	1.09	1.13	0.99	-0.76
<b>Swine</b>	Thousands heads	145	118.9	225.4	198	121	166
	%		0.88	0.96	0.99	0.79	-1.99
<b>Of which breeding sows</b>	Thousands heads	12	8.8	18.3	10.5	5	11
	%		0.88	1.10	0.93	0.80	-9.84
<b>Ovis</b>	Thousands heads	157	125.8	123.1	153.4	139	133
	%		0.98	1.05	1.24	1.01	-1.31
<b>Of which Sheep and young sheep</b>	Thousands heads	142	113.8	113.3	131.7	120	118
	%		0.97	1.09	1.15	1.02	-1.84

<b>Capra</b>	Thousands heads	29	32.2	33.8	43	40	35
	%		0.83	1.17	1.28	1.01	3.77
<b>Of which Goats</b>	Thousands heads	23	25	26	32	27	26
	%		0.81	1.13	1.23	0.89	1.63
<b>Birds</b>	Thousands heads	3138	3091.4	2914.3	4107.8	2684	3094
	%		0.99	0.98	1.39	0.89	-1.72
<b>Of which laying birds</b>	Thousands heads	1688	1815.2	1863.6	1975.5	1764	1889
	%		0.93	0.89	0.98	0.86	0.49

Source: Teleorman County Statistical Yearbook 2010 (INS , 2010)

During the period analyzed we observe that sheep livestock dropped at an annual rate of -1,31 %, respectively from 157000 heads at 133000 heads in the year 2009. The same trend is manifested with the herds of sheep and young sheep . There's a growth trend is capra from 29000 to 35000 heads ( annual growth of 3,77 %) and in laying birds from 1688000 to 1889000 heads ( annual growth of 0.49 %).

**Table No.2 Developments in agricultural crops animals at Teleorman county level , for the period 2000-2009**

Species/Category	UM	Years					Med/ Rhythm
		2000	2003	2005	2007	2009	
<b>Cow meat</b>	TTLW	5.8	8.7	7.3	7.9	7.1	6.9
	%		1.2	1.3	1.3	0.8	2.3
<b>Swine meat</b>	TTLW	21.8	19.3	19.4	16.1	9.3	16.7
	%		0.9	1.6	1.0	0.7	-9.0
<b>Sheep and goat meat</b>	TTLW	2.8	2.8	2.3	2.3	4.3	2.9
	%		0.9	0.5	1.2	1.8	4.8
<b>Poultry meat</b>	TTLW	7.7	6.3	6.3	6.3	5.1	6.7
	%		0.7	1.2	1.1	0.9	-4.4
<b>Cow milk</b>	thousands Hl	1243.0	1232.0	1269.0	1342.0	1172.0	1255.10
	%		1.0	1.1	1.0	0,86	-0,65
<b>Chicken eggs</b>	Thousands pieces	147.0	181.0	225.0	247.0	200.0	206.7
	%		1.0	1.1	1.0	0.8	3.5

Source: Teleorman County Statistical Yearbook 2010 (INS, 2010); TTLW (Thousands tonnes liveweight)

Meat production in the county was analyzed through the following indicators: annual growth rate, coefficient of variation and confidence limits oscillations of the production for the probability of 90%, 80% and 60%. So at cow meat is a slight increase from 5.8 TTLW to 6.9 TTLW, with an annual increase rate of 2.3%. The coefficient of variation is 17.2% (medium variation). The amplitude of the confidence limits for risk for 10% (probability 90%) is 71.2%,for 20% risk is 53.48 % and for the risk 40% is 34.03% .

Compared to other meat products it is the lowest. (Table 3 and 4). Analyzing the acquisition price of cow meat in lei / kg live we found that it increased in this period from 1.13 / kg to 4.79 lei / kg, with an average growth rate of 17.41%. (Table 5). Cow meat price variation is 99.61% of the average price of 2.88 lei / kg live for a risk of 10% and 47.61% for a risk of 40% (table no. 6).

**Table 3. The size of the standard deviation and the coefficient of variation of the main animal products, over the period 2000-2009, in the Teleorman county**

Species/Category	UM	The average of years 2000-2009	Standard deviation	Coef. Of Variation	
				%	Significance
<b>Cow meat</b>	TTLW	6.92	1.19	17.12	Middle var
<b>Swine meat</b>	TTLW	16.70	3.93	23.52	High var
<b>Sheep and goat meat</b>	TTLW	2.90	0.86	29.54	High var
<b>Poultry meat</b>	TTLW	6.66	1.52	22.85	High var
<b>Cow milk</b>	thousands Hl	1255.10	66.02	5.26	Low var
<b>Chicken eggs</b>	Thousands	206.70	32.47	15.71	Middle var

	pieces			
--	--------	--	--	--

Source: Teleorman County Statistical Yearbook 2010 (INS, 2010); TTLW (Thousands tonnes liveweight),

After studying the evolution of production of swine meat in Teleorman county level we can see a decrease from the 21,8 TTLW to 9,3 TTLW in 2009 decreasing by -9,0 %. The coefficient of variation was about 23,52 % ( great variation) (Table 3). The amplitude of the average in 2000-2009 , namely 16,70 TTLW, was of 97,83 % for the risk of 10 %, 73,48 % for the risk of 20 % and 46,76 % for risk of 40 %.

**Table 4. The size of the mean square deviation and the oscillation of the amplitude from the average over the period 2000-2009 for the main animal products in Teleorman county**

Species/ Category	UM	The years average 2000- 2009	The mean square deviation	p90%, risk=10%		p=80%, risk 20%	p=60%, risk=40%
				limits		Amplitude %	Amplitude %
				min	max		
Cow meat	TTLW	6.92	1.33	4.5	9.4	71.20	53.48
Swine meat	TTLW	16.70	4.39	8.5	24.9	97.83	73.48
Sheep and goat meat	TTLW	2.90	0.96	1.1	4.7	122.86	92.28
Poultry meat	TTLW	6.66	1.70	3.5	9.8	95.05	71.39
Cow milk	Thousands HI	1255.10	73.82	1117.8	1392.4	21.88	16.43
Chicken eggs	Thounsandpieces	206.70	36.30	139.2	274.2	65.33	49.07

Source: Teleorman County Statistical Yearbook 2010 (INS ,2010); TTLW (Thousands tonnes liveweight)

Analyzing the acquisition price of pig meat it shows an increase in the analyzed period from 1.79 lei / kg to 5.1 lei / kg, in 2009, with an average growth rate of 12.34%. (Table 5). Oscillation amplitude of the pork price is of 90.32% of the average price of 3.76 lei / kg live for a 10% risk of 67.84% for a risk of 20% and 43.17% for risk of 40%. (table no. 6).

**Table no. 5. The annual growth rates of the average purchase prices for the main livestock products at the level of Teleorman county over the period 2000-2009.**

Species/Category	UM	Years					Med/ Rhythm
		2000	2003	2005	2007	2009	
Cow meat	RON kg live weight	1.13	2.39	3.3	2.98	4.79	2.88
	%		0.91	1.26	0.90	1.36	17.41
Swine meat	RON kg live weight	1.79	3.3	4.69	3.55	5.1	3.76
	%		0.96	1.20	0.85	1.10	12.34
Sheep and goat meat	RON kg live weight	2.29	4.74	3.31	3.52	5.33	3.85
	%		1.16	0.75	1.20	1.27	9.84
Poultry meat	RON kg live weight	1.79	2.9	3.78	3.33	3.47	3.10
	%		1.04	1.21	0.90	1.02	7.63
Cow milk	RON /l	0.26	0.56	0.64	0.75	0.9	0.61
	%		1.22	1.03	1.12	1.02	14.79
Chicken eggs	RON / piece	0.09	0.17	0.22	0.24	0.3	0.20
	%		1.21	0.96	1.14	1.15	14.31

Source: Romanian Statistical Yearbook 2009 (INS , 2009)

Analyzing the sheep and goat meat production at the Teleorman county level we find an increase from 2.8 TTLW in 2000 to 4.3 TTLW in 2009, the annual growth being 4.8%. (Table 2). The coefficient of variation is of 29.54% , the variation is considered high.

The amplitude of the average achievements of 2.90 MTGV is 122,86 % for a risk of 10 %, 92,28 % for a risk of 20 % and 58,72 % for a risk of 40% (Table 4).

The purchase price of meat of sheep and goat meet increased in the period under consideration from 2.29 lei/ kg at 5,33 lei/kg, having an average rate of increase of 9.84 %. (Table 5). Price variation of sheep and goat meat is of 76,85 % of the average price of 3.85 lei per kg live weight, for a risk of 10 %, 57,72 % for a risk of 20 % and 36,73 % for a risk of 40 % . (table 4).

**Table No. 6. The size of the mean square deviation and the oscillation of the amplitude from the average at the price of the main animal products during the period 2000-2009 in Teleorman county**

Species/ Category	UM	The years average 2000-2009	Mean square deviation	p90%, risk=10%		p=80%, risk 20%	p=60%, risk 40%
				limits		Amplitude %	Amplitude %
				min	max		
<b>Cow meat</b>	RON kg live weight	2.88	0.772	1.447	4.317	99.61	74.81
<b>Swine meat</b>	RON kg live weight	3.76	0.912	2.060	5.454	90.32	67.84
<b>Sheep and goat meat</b>	RON kg live weight	3.85	0.794	2.367	5.323	76.85	57.72
<b>Poultry meat</b>	RON kg live weight	3.10	0.614	1.958	4.240	73.66	55.32
<b>Cow milk</b>	RON/l	0.61	0.192	0.256	0.970	116.46	87.47
<b>Chicken eggs</b>	RON/piece	0.20	0.057	0.095	0.307	105.28	79.08

Source: Romanian Statistical Yearbook 2009 (INS, 2009)

Regarding the cow milk product in the Teleorman county we found that the milk production has a slight decrease from 1243 thousand HI in 2000 to 1172 thousand HI in 2009, the annual decrease is by -0.65%.

The value of the coefficient of variation is 5.26% (low variation). The amplitude of production compared with the average of years( 1255 thousands HI), was 21.88% for a 10% risk , 16.43% for a risk of 20% and 10.46% for a 40% risk. (Table 4).

The milk price has seen a significant increase from 0.26 Ron / liter in 2000 to 0.9 Ron / liter in 2009, the annual growth being of 14.79% (Table 5).

Price variation during the analyzed period compared with the average price was 0.61 Ron / liter , 116.46% fo a risk of 10%, 79.08% for a risk of 20% and 50.32% for a risk of 40%.

## CONCLUSIONS

The knowledge of the evolution of the main statistical indicators that characterize agricultural animal production has an important role in developing strategies in the county agriculture. The meat production in the county was analyzed through the following indicators: the annual growth rate, the coefficient of variation and the confidence limits oscillations of the productions for the probability of 90%, 80% and 60%.

In Teleorman County the livestock evolution over the period 2000-2009 is as follows: for the cattles, livestock number has a tendency to decrease at a rate of -1.45% from 60000 heads in 2000 to 53000 heads in 2009 , the swine presents an annual growth rate of -1.99%, sheep decrease with an annual rate of -1.31%, respectively, from 157,000 heads to 133,000 in 2009.

With cow meat we see a slight increase from 5.8 TTLW to 6.9 TTLW, with an annual growth of 2.3%. The amplitude of the confidence limits for the 10% risk (90% probability 90%) is 71.2%, for 20% risk is 53.48% and for the 40%.risk has the value 34.03% .

Regarding the swine meat in the county of Teleorman it has decreased from 21.8 TTLW to 9.3 TTLW in 2009 with a -9.0% decline. The amplitude compared to the average 2000-2009 (16.70 TTLW), was of 97.83% for 10% risk , 73.48% for 20% risk and 46.76% for 40% risk.

The production of sheep and goat meat in the county, increased in value from 2.8 TTLW in 2000 to 4.3 TTLW in 2009, the annual growth is by 4.8%. Analyzing the acquisition price for mutton and goat meat we can see an increase in the analyzed period from 2.29 lei/ kg to 5.33 lei /kg.

Concerning the production of cow milk at Teleorman county level it is found that milk production knows a slight decrease from 1243 thousand Hl in the year 2000 to 1172 thousand Hl in 2009, the annual decrease rate being of -0,65 %. The price amplitude analyzed during the period has been compared to the average price of 0.61 Ron / liter and has shown a 116.46% value for a 10% risk , 79.08% for 20% risk and 50.32% for the 40% risk .

#### 4. Acknowledgements

This article was developed under the project “Doctoral scholarships to increase the quality of training young researchers in the field of agronomy and veterinary medicine” (contract POSDRU/88/1.5/S/52614), project cofinanced from European Social Fund by Human Resources Development Operational Programme 2007-2013 and coordinated by the University of Agronomic Sciences and Veterinary Medicine Bucharest..

#### 5. References

- Ceapoiu,N. (1968) *Metode statistice aplicate in experientele agricole si statistice*, Ed.Agro-Silvica, Bucharest
- Cheran , A. (2009) *Excesul de carne amenința grav planeta*, available in FORMULA AS no. 857
- Peligrad ,A. (decembre 2008), *Industria carni nu recunoaste criza*, *Fabrica De Carne*, Ed. noiembrie - no. 2, available at [http://www.fabricadecarne.ro/industria+carnii+nu+recunoaste+criza\\_art65.html](http://www.fabricadecarne.ro/industria+carnii+nu+recunoaste+criza_art65.html)
- Bursa Agricola.ro (2005-2012) *Prediction of EU-25 agriculture during the period 2005-2012* Demographic growth, <http://www.dictsociologie.netfirms.com/ IndDem/IndReproducere.htm>
- Commission Communication to the Council and European Parliament, [http://ec.europa.eu/development/icenter/repository/COMM\\_PDF\\_COM\\_2010\\_0127\\_F\\_RO\\_COMMUNICATION.pdf](http://ec.europa.eu/development/icenter/repository/COMM_PDF_COM_2010_0127_F_RO_COMMUNICATION.pdf)
- INS (2009) *Romanian Statistical Yearbook*;
- INS ( 2010) *Statistical Yearbook County Teleorman*

# MANAGEMENT STRATEGIES OF THE ORANGE MOBILE TELECOMMUNICATIONS COMPANY FACING THE ECONOMIC-FINANCIAL CRISIS

MARCU Nicu

*Associate professor/ PhD, Faculty of Economics and Business Administration/ Department of Finances, Banks and Analysis, University of Craiova, Craiova, Romania, e-mail: marcu.nicu@yahoo.com*

MEGHISAN Georgeta-Madalina

*Teaching assistant/ PhD, Faculty of Economics and Business Administration/ Department of Management-Marketing and Business Administration, University of Craiova, Craiova, Romania, e-mail: madalina\_meghisan@yahoo.com*

**Abstract:** *The telecommunications operators have to determine the optimal strategic direction through a careful appreciation of the four main elements of change on the telecommunications market: the technology, the legislation, the clients and the competition. The powerful motivation behind the strategy of growth of every operator already present on a market is a defensive one – the protection of the central market share and the maintenance of the incomes at the current levels. The new competitive environment of the mobile telecommunications needs trained operators to take strategic decisions in uncertain conditions.*

**Key words:** convergence strategy, strategic alliances strategy, fusion-acquisitions strategy, tacit agreement strategy, advanced technology strategy

**JEL classification:** M16, G01

## 1. Introduction

Any strategic approach is founded on a good knowledge of the company and its environment, made possible through the company's diagnosis. Within this context, the global company's diagnosis allows understanding the existing connections between the strategic position, the resources, the defining characteristics of an organization and its managerial culture. The global diagnosis is made at two distinctive levels: the external environment analysis, known as external diagnosis and the internal environment analysis. We can identify several alternatives that will allow us solving the problem and reaching the established objectives, based on the analysis of the gathered information from different internal and external sources. An important role within this stage is the generation of an important number of options that will then be analyzed and evaluated.

The purpose of this research consists in determining the strategic orientations of the Orange Romania mobile telecommunications operator. For accomplishing this goal, we formulated two questions that we tried to answer through a questionnaire:

- What are the elements with the highest competitive potential that the company takes into consideration?
- What are the growth elements that the company focuses on?

## 2. Literature review

Once opening the telecommunications industry towards competition, the disadvantages of the internal development become obvious. The ritual of the internal growth is limited by the time constraints for the development of the transmission infrastructures, construction of communication nodes, installation of new technologies or training the employees; this aspect can be seen as a competitive disadvantage towards the competition and, often, a strategy of alliances or fusion-acquisitions is imposed.

Towards the handicap of the weak speed of the internal growth, the traditionally adopted strategy by the companies so as to manage the activities from the dynamic sectors with high technology is that of the **external growth** (Ohmae, 1990). This concept can be defined as „a strategy of growth through acquisition of taken control of the whole range of production ways already combined, already in function and, compulsory, second hand.” (Paturel, 1983)

Within the telecommunications field, the development of the networks and operational ways, that are the base for the acquisition of other operators can bring earnings of growth much more important than the strategies of internal growth or alliances.

The second option for the company's development that allows a rapid growth consists in adopting a **cooperation strategy**, in which the most important shape is represented by the alliances. As Grochla

and Schonbohm underline, the cooperation is „a collaboration that is based on tacit or contractual agreements between autonomous companies from a juridical point of view and independent from an economic point of view” (Grochla et al., 1980). This strategy supposes an external growth through operations of fusion-acquisitions, when it can be translated as a loose of autonomy and independence of one of the partners.

Another fact that explains the growths in importance of the cooperation strategy through alliances is that is approaching many industries (biotechnology and pharmaceutical industry, electronics and automobiles construction, informatics and telecommunications etc), a company can not develop itself (time factor) or to achieve the needed abilities (costs and risks factors) so as to follow the evolution of its environment. An alliances strategy allows the access to these abilities, reducing the restrictions that come from the „time”, „costs” and „risk” factors, keeping the company’s autonomy.

Acquisitions are generally associated to fusions. We speak of M&A (**merges and acquisitions**). In reality, these two operations are distinct from a juridical point of view. „Merges represent the reunion of at least two pre-existent companies through the absorption of one by the other or through the creation of a new society which “absorbs its creators”. (Blanchot F. et al., 1995, pp. 145). The absorbed company is dissolved, while its patrimony is transmitted to the absorbing company. We speak here of the dissolution without liquidation.

Contrary to the fusions, „the acquisitions are favourable, because they correspond to a taken over with no ambiguity of the new assembly.” (Gouali, M., 2009, pp. 76) If the target company is listed, the take over is done through a public offer of buying or exchange. These allow the clear identification of the several sources of synergy and the mobilisation of the rare resources to create value.

### 3. Research methodology

The data gathering method was the questionnaire sent by post office to all the Orange Romania branches (a total of 225 branches). The addresses of these mobile telecommunications branches were taken from the Internet site of the Orange Romania mobile telecommunications operator (www.orange.ro). We received a number of 64 responses, what means a responses rate of 28.4%, which were analyzed using the SPSS informatics program focusing on the correlation analysis and factor analysis.

**Hypothesis no 1:** The Orange company follows at least one of the following strategies: the convergence strategy for the offered services, the strategic alliances strategy, the fusion-acquisitions strategy, the tacit agreement strategy and the advanced technology strategy.

**Hypothesis no 2:** The Orange mobile telecommunications company focuses on the following elements of growth: the geographical expansion, the customers’ base expansion, the service offered development and the diversification of the service offered.

**Hypothesis no 3:** The competitive dimensions that the Orange mobile telecommunications company focuses on are: the continuous communication with the clients, the personalized offer for a client, the clients’ needs anticipation, the variety of the services offered, the growth of the efficiency of the network services sales, the major innovations, the key technologies control, the efficiency of cost and capital investments, the data transfer speed and the externalization of some less important activities.

### 4. Results

**Analysis of the hypothesis no 1.** Using the exploratory factor analysis we will verify the measurement scale regarding the strategies followed by the Orange mobile telecommunications company. A KMO indicator of 0.646 allows accepting the results of this factor analysis. (Table 1)

**Table 1. KMO indicator**

KMO test	
Kaiser-Meyer-Olkin measurement	0.646

Source: Data analysis using the SPSS informatics program

The final analysis revealed the three factors regarding the quality of the representation. (Table 2) The highest value (0.684) is attributed to the factor the alliance strategy, followed by the tacit agreement strategy (0.614) and the fusion-acquisitions strategy (0.533). This factor solution explains more than 60% of the total dispersion. (Table 3)



**Table 2. Representation quality**

Answers	Initial	Extraction
Strategy of strategic alliances is followed by the company	1.000	0.684
Strategy of fusions-acquisitions is followed by the company	1.000	0.533
Strategy of tacit agreement is followed by the company	1.000	0.614

Source: Data analysis using the SPSS informatics program

**Table 3. Explained variation in percentage, number of factors**

Components	Total	% dispersion	% cumulate	Total	% dispersion	% cumulate
1	1.831	61.039	61.039	1.831	61.039	61.039
2	0.673	22.442	83.481			
3	0.496	16.519	100.000			

Source: Data analysis using the SPSS informatics program

The Table 4 results reveal the extracted dimension, together with the component elements. These are:

- The alliance strategy;
- The fusions-acquisitions strategy;
- The tacit agreement strategy.

**Table 4. Structural coefficients**

Answers	Components
	1
Strategy of strategic alliances is followed by the company	0.827
Strategy of fusions-acquisitions is followed by the company	0.730
Strategy of tacit agreement is followed by the company	0.784

Source: Data analysis using the SPSS informatics program

The alfa Cronbach coefficient, an internal coherence indicator of a measurement scale has the value 0.678. We can take in consideration this value as being an accepted minimum. (Table 5)

**Table 5. Alfa Cronbach coefficient**

Alfa Cronbach	Number of elements
0.678	3

Source: Data analysis using the SPSS informatics program

There is also a connection between the elements of growth that the company underlines. In this regard, we can observe a tight link between the alliances strategy and the tacit agreement strategy (0.49;  $p < 0.01$ ).

**Analysis of the hypothesis no 2:** The Orange mobile telecommunications company focuses on the following elements of growth: the geographical expansion, the customers' base expansion, the service offered development and the diversification of the service offered.

The exploratory factor analysis will be used to verify the measurement scale regarding the growth elements that the company focuses on. Thus, the KMO indicator (0.500) allows accepting the results of this factor analysis. (Table 6)

**Table 6. KMO indicator**

KMO test
Kaiser-Meyer-Olkin measurement
0.500

Source: Data analysis using the SPSS informatics program

The representation quality of the variable *clients' base expansion* and *the development of the offered service* have the same value (0.675). (Table 7) The table with the total dispersion presents the

dimension that resumes the information. This explains in a percentage of 67.544% the total dispersion. (Table 8)

**Table 7. Representation quality**

Answers	Initial	Extraction
Clients base expansion represents an element of growth that the company focuses on	1.000	0.675
Development of the service offered represents an element of growth that the company focuses on	1.000	0.675

Source: Data analysis using the SPSS informatics program

**Table 8. Explained variation in percentage, number of factors**

Components	Total	% dispersion	% cumulate	Total	% dispersion	% cumulate
1	1.351	67.544	67.544	1.351	67.544	67.544
2	.649	32.456	100.000			

Source: Data analysis using the SPSS informatics program

In the Table 9, the second column corresponds to the extracted dimension, with coefficients that can be interpreted as correlation coefficients. The two components are:

- *The clients' base expansion;*
- *The offered service development.*

**Table 9. Structural coefficients**

Answers	Components
	1
Clients base expansion represents an element of growth that the company focuses on	0.822
Development of the service offered represents an element of growth that the company focuses on	0.822

Source: Data analysis using the SPSS informatics program

**Analysis of the hypothesis no 3:** The competitive dimensions that the Orange mobile telecommunications company focuses on are: the continuous communication with the clients, the personalized offer for a client, the clients' needs anticipation, the variety of the services offered, the growth of the efficiency of the network services sales, the major innovations, the key technologies control, the efficiency of cost and capital investments, the data transfer speed and the externalization of some less important activities.

The exploratory factor analysis will be used to test the measurement scale regarding the elements that the Orange Romania mobile telecommunications operator focuses on regarding the clients, mobile telecommunications services and the mobile telecommunications network.

From the Table 10 we can see a KMO indicator of 0.725, what allows us to accept the results of this factor analysis.

**Table 10. KMO indicator**

KMO test	
Kaiser-Meyer-Olkin measurement	0.725

Source: Data analysis using the SPSS informatics program

The quality of the representation of the variable *the control of the key technologies in mobile telecommunications services* has a value of 0.703, while the quality of the representation of the variable *the major innovations in mobile telecommunications* is 0.497. (Table 11)

**Table 11. Representation quality**

Answers	Initial	Extraction
Regarding the clients, the company focuses on the continuous communication with them	1.000	0.628
Regarding the clients, the company focuses on the personalized offer	1.000	0.631
Regarding the clients, the company focuses on the variety of the services offered	1.000	0.631
Regarding the mobile telecommunications services, the company focuses on the major innovations	1.000	0.497

Regarding the mobile telecommunications services, the company focuses on the domination of the key technologies	1.000	0.703
Regarding the mobile telecommunications network, the company focuses on the data transfer speed	1.000	0.556

Source: Data analysis using the SPSS informatics program

The Table 12 presents the two dimensions that summarizes the information. The first dimension allows explaining the phenomenon's dispersion in a percentage of 30.887%, while the second dimension synthesises the phenomenon in a percentage of 29.864%. The two dimensions explain the total dispersion more than 60% (60.751%).

**Table 12. Explained variation in percentage, number of factors**

Components	Total	% dispersion	% cumulate	Total	% dispersion	% cumulate	Total	% dispersion	% cumulate
1	2.516	41.927	41.927	2.516	41.927	41.927	1.853	30.887	30.887
2	1.129	18.825	60.751	1.129	18.825	60.751	1.792	29.864	60.751
3	.732	12.200	72.951						
4	.679	11.309	84.260						
5	.525	8.747	93.007						
6	.420	6.993	100.000						

Source: Data analysis using the SPSS informatics program

According to the Table 13, the dimensions that the company focuses on are:

- *The continuous communication with the clients;*
- *The personalised offer for the clients;*
- *The variety of the services offered to the clients;*
- *The major innovations in mobile telecommunications services;*
- *The control of key technologies in mobile telecommunications;*
- *The speed of data transfer regarding the mobile telecommunications network.*

**Table 13. Structural coefficients**

Answers	Components	
	1	2
Regarding the clients, the company focuses on the continuous communication with them	0.699	0.373
Regarding the clients, the company focuses on the personalized offer	0.520	0.601
Regarding the clients, the company focuses on the variety of the services offered	0.729	0.316
Regarding the mobile telecommunications services, the company focuses on the major innovations	0.608	- 0.357
Regarding the mobile telecommunications services, the company focuses on the domination of the key technologies	0.703	- 0.456
Regarding the mobile telecommunications network, the company focuses on the data transfer speed	0.601	- 0.441

Source: Data analysis using the SPSS informatics program

We then verify the reliability of the measurement scale, using the Alfa Cronbach coefficient. In this case, its value is 0.795, considered to be acceptable. (Table 14)

**Table 14. Alfa Cronbach coefficient**

Alfa Cronbach	Number of elements
0.705	6

Source: Data analysis using the SPSS informatics program

Also, from the data analysis we can say that there is a strong connection between the continuous communication with the clients and the variety of the services offered (0.50;  $p < 0.01$ ), on one hand and,

on the other hand, between the efficiency of the cost and investment of capital of the telecommunications network (0.39;  $p < 0.01$ ). Moreover, controlling the key technologies is closely linked to the speed of data transfer (0.44;  $p < 0.01$ ) and the major investments (0.43;  $p < 0.01$ ).

## 5. Conclusions

**The hypothesis no 1 is completely validated.** Analyzing the responses, the Orange company follows the following strategies: the alliances strategy, the fusions-acquisitions strategy and the tacit agreement strategy. We can observe a close correlation between the alliances strategy and the tacit agreement strategy.

**The hypothesis no 2 is partially verified.** The Orange mobile telecommunications company focuses on the following elements of growth: the expansion of the clients' base and the development of the offered service.

**The hypothesis no 3 is partially confirmed.** The competitive dimensions that the Orange mobile telecommunications company focuses on are: the continuous communication with the clients, the personalised offer for the client, the variety of the services offered, the major innovations, the control of the key technologies and the speed of data transfer.

## 6. References

- Blanchot F., Montmorillon B. (1995). *Le partenariat interentreprises : caractérisation, déterminants de son choix et de ses principaux supports juridiques*. Dijon : Sciences de Gestion
- Gouali M. (2009). *Fusions-acquisitions: les 3 règles du succès*, Paris : Ed. d'Organisation.
- Grochla E., Schonbohm P. (1980). *Beschaffung in der Unternehmung: Einführung in eine umfassende Beschaffungslehre*. Stuttgart: Poeschel.
- Meghisan Gh., T. Nistorescu. (2008). *Marketing*. Craiova: Sitech.
- Meghisan F. (2010). *Comportamentul consumatorului – de la teorie la practica*. Craiova: Universitaria.
- Ohme K. (1990). *The borderless world: power and strategy in the interlinked economy*. New York: HarperBusiness.
- Paturel R. (1983). *Réflexions sur l'actualité du concept de la croissance externe*. Grenoble : Centre d'études et de recherches appliquées a la gestion.
- [www.orange.ro](http://www.orange.ro)

# LEADERSHIP AND THE SOURCES OF POWER

*MARINESCU Paul*

*Professor, Faculty of Administration and Business, Department of Economical Science, University of Bucharest, Romania, [paulmarinescu1@gmail.com](mailto:paulmarinescu1@gmail.com)*

*TOMA Sorin-George*

*Professor, Faculty of Administration and Business, Department of Economical Science, University of Bucharest, Romania, [tomagsorin62@yahoo.com](mailto:tomagsorin62@yahoo.com)*

**Abstract:** *The aims of our paper are to demonstrate that power can influence the quality of leadership in a system and, that the leader of an organization can choose to delegate power to the employees, keeping them motivated and improving the overall performance of the organization. The ability to influence others is based on native traits and constitutes a product of personal development. The TeamWork association, comprising students mainly from the Faculty of Administration and Business, University of Bucharest, is a good example of the way in which power and leadership influence each other contributing to the development of a system.*

**Keywords:** leadership, power, team, strategy

**JEL classification:** M12

## 1. Introduction

Since the earliest times, the subject of leadership, viewed as both the art and the science of organizing people to achieve a common goal, has been the subject of numerous researches. Philosophers, military, political and economical leaders have all tried to shed light on the specific abilities that allow some people to have significantly better results than others in leading, motivating and influencing people or groups.

Like any subject that arouses such interest the study of leadership has yielded an extremely large but not always extremely relevant literature. In the rush to identify different points of view, authors have analyzed the styles of different military leaders (from Attila the Hun to Abraham Lincoln), philosophers (“If Aristotle Ran General Motors”), spiritual leaders (“The 25 Most Common Problems in Business: And How Jesus Would Have Solved Them”) and even fictional characters („Winnie-the-Pooh on Management”) making this ocean of writings extremely difficult, and sometimes even frustrating, to navigate.

Even the seemingly simple task of defining leadership proves to be more complex than would seem at a first glance, because different schools of thought view leadership and the attributes that make it effective from different angles, highlighting some aspects and disregarding others. In short, we think that leadership can be viewed as the ability to organize people and their efforts in a certain direction. In this respect, it is very important the ability to bring different forces together, to motivate them to work together, but above all else the ability to determine and define common goals or ideals.

The aims of our paper are to demonstrate that power can influence the quality of leadership in a system and, that the leader of an organization can choose to delegate power to the employees, keeping them motivated and improving the overall performance of the organization.

## 2. Leadership Theories

The multitude of theories on leadership makes an exhaustive presentation extremely difficult, however we think that these theories can be grouped in three main categories based on the aspect they find dominant. From these points of view we can identify theories that focus on the leader's traits, theories that emphasize the leadership style and theories that study the conjuncture in which leadership takes place.

From a historical point of view the first approach considered that leaders owe their success to some innate traits that differentiate them from the rest of the people, this is known as the trait theory of leadership. This school of thought began with the ancient philosophers, especially Plato in *The Republic*

and Plutarch in Parallel lives tried to find an answer to the question "What qualities distinguish an individual as a leader?". The same path was followed by Thomas Carlyle who in his „*On Heroes and Hero Worship and the Heroic in History*”(1841) analyzed the importance that „heroic” leadership had on the evolution of human society.

In his work Hereditary Genius (1869) Francis Galton examined the leadership qualities present in the families of powerful man. After having analyzed the number of brilliant persons among the first and second degree relatives of powerful people, and observing a decrease among the latter, he concluded that leader’s abilities are inherited, in other words that leaders are born and not formed.

The biggest drawback that critics of this school of thought have identified is that by focusing on innate abilities leadership becomes the sole attribute of a few “chosen by destiny” and can not be replicated by other people. In analyzing this view we have to take into account, in our opinion, the historical context in which it evolved. In that period very few “commoners” could hope to achieve positions of power in society, so it was easy to consider leadership as the trait of an elite. It is also clear that members of this elite had every reason to portrait themselves as special, “chosen by destiny” and thus justify the privileges they held.

Although this initial theories are now outdated, some aspects of the trait theory of leadership are still relevant, even if they bare little resemblance with the original. Although the idea of innate abilities essential to someone’s success as a leader is a thing of the past, there are a few configurations of traits that seem to be common to a series of top level managers in public and private organizations, among this the most frequently mentioned are: intelligence, initiative, self-confidence and the ability to “see the big picture”. After conducting a study among top-level managers John W. Hunt of the London Business School concluded that some of the factors they consider most important are: the ability to work with different types of people, taking on global responsibility for important tasks, setting high goals for personal development, extensive experience in management positions from early in the career.

An alternative school of thought focuses on the way leaders behave in order to determine individuals and groups to accomplish a certain task.

Leadership styles became a subject of analysis after the publishing, in 1983, of the White and Lippitt study in which the authors identify three different styles that can be chosen by a leader, each with its own advantages and disadvantages. The authors identified the autocratic style, in which the leader makes all the decisions, and which they consider functional only if the leader is always present; the democratic style, in which decisions are taken after consulting all the members, a style they consider most efficient all-round and the laissez-faire style, in which the members of the group work independently, the leader being generally absent, and which they consider efficient only if the tasks and objectives are clear to all the members beforehand.

One very useful model in the leadership style theory is that developed by American psychologists Robert Blake and Jane Mouton. In this model they rank leadership style according to the relative importance they give to two aspects, they consider of paramount importance: focus on production and focus on people. From this point of view focus on production means the importance leaders put on completing the organizational goals and the authors quantify this on a scale from 1 to 9 (1- totally unimportant and 9-totally important), and focus on people means the importance given by leaders to motivating team-members, satisfying there needs and creating a friendly atmosphere, quantified on the same scale.

In this frame of reference the authors identify five basic styles: style 1,9-Country-Club Management (highest interest for people, low interest for production, strong chances of not meeting the goals because of the atmosphere being to friendly), style 9,1- Authority-compliance Management (highest interest for production, low interest for people, likely to generate tensions between group members and the leader), style 1,1- Impoverished Management (low interest for people, low interest for production, total lack of interest from the leader, high chance of inefficiency), style 5,5- Middle of the Road Management (medium interest for people, medium interest for production, an overall balanced style, should aim to become 9,9), style 9,9- Team Management (high interest for people, high interest for production, maximum involvement by leader, is very likely to lead to efficiency).

The leadership style approach offers a more in-depth approach to the study of leadership because, according to this view, a manager can change and improve his leadership abilities, the accent being put not on innate and thus impossible to duplicate abilities, but on the effort made by every leader on personal development and optimal use of the authority of position to influence individuals and groups.

The third school of thought considers leadership as the product of a series of circumstances and, from this point of view, one can not define an ideal style of management, but should struggle to find the

best option in every given situation. This school of thought analyzes leadership at an even deeper level than the leadership style theory because it treats every situation differently and takes into account other variables except the leader's behavior.

The most influential authors that support the conjuncture theory are Robert Tannenbaum and Warren H. Schmidt who, in 1958, developed a model that analyses the connection between the way leaders use their authority and the freedom of choice their followers have. From this point of view a leader starts by holding most of the decision making powers himself, and then begins to gradually delegate them to the members of the group once they start gaining abilities, maturity and involvement. Although the trend is towards delegating, the leader maintains the ability to act in an authoritarian way if the circumstances demand it (for example, if a situation arises in handling which the group members lack experience).

A very important aspect according to this school of thought is that the decisions that a leader makes aren't solely based on his personality (although this remains an important factor) but also on the interactions with his followers (their abilities, attitudes, etc.), the task at hand and the context in which he (and his group) have to function. Seen from this point of view leadership isn't regarded as an individual process anymore, but as a collective one, as we can not analyze a leader in the absence of a team, and we can hardly understand a team disregarding the task or the environment. This approach focuses on the leader's capacity to adapt to the context he has to navigate in and, on the other side, suggests that he might, at some point, create contexts. We can, to some extent, consider that today's virtual context will become tomorrow's reality.

In the contexts he has to act in, or that he creates, the leader has to balance the abilities his team members have and the roles assigned to them, on one side, and the completion of the tasks at hand according to the applicable performance criteria, on the other.

### **3. Power sources and strategies of influence**

Whichever of the models presented in this paper, or for that matter, whichever of the many different models available in the literature we decide to choose, it is clear that we can't analyze leadership in the absence of its main catalyst, and that is power. If we define power as the ability of an individual or a group to influence other persons or groups, the next notion we need to define is that of influence. Generally influence is viewed as the process through which a person or a group gains the ability to affect what another person or group does or thinks. From this point of view, it is clear that the bear nature of a leader is strictly connected to his ability to hold and use power over the members of his group, to his capacity to influence that group's members and to the way he can gain authority over them.

The power of a person or group is not an inherent trait, rather it is based on a few sources, or basis. The way in which these are held and used in a certain context determines the level of power that the person or group actually holds.

Generally we can differentiate between power based on resources, social power, expertise power, personal power, power based on information and power based on force. At the level of a group or organization some of these sources are considered legitimate, while the use of others (like physical force, for example) is banned.

Power based on resources is based both on the rarity of those resources and on the ability of the holder to use them according to his will. In case these two conditions aren't met at the same time we can talk about partial power at most. At the same time the value that others place on those resources determines the exact level of power the holder has.

Power of expertise is based on the professional capabilities the holder has and, at the same time, on the value the group members place on that knowledge at a given time. We can differentiate between technical knowledge and process knowledge (the difference between knowing how something can be done and how something should be done).

Personal power is given by the qualities a person has, and is from this point of view, close to expertise power, in some instances the two can overlap. Usually, these qualities are hard to quantify and measure as they also depend on the way a person is viewed by the group members.

Social power depends on the position formally held in a group or organization but also on the more complex social relations a person has developed, both formally and informally, with the stakeholders of that group or organization, the latter being usually the most important.

Power based on information gained a paramount importance in today's context when, although the access to information is easier than ever, the importance they hold in any organization is unparalleled.

The way in which a leader uses the sources of power available to him, as well as the way he employs strategies to influence the behavior of the group members determines how successful he is, and more often than not, how efficiently the objectives of the group or organization he is part of are met. Generally we can differentiate between “push” strategies, “pull” strategies, persuasion, preparation and prevention strategies.

“Push” strategies are based on attaching a cost to the behavior of a person or group that is in contradiction to the requirements set by the leader. These kinds of strategies rely heavily on a person’s power to enforce sanctions and may lead to tensions because of “forced compliance” by the people they are used on.

“Pull” strategies rely on offering an incentive when a behavior according to the leader’s demands accrue being, from this point of view, the total opposite of “push” strategies, as they represent the “carrot” while the former represent the “stick”. These kinds of strategies rely both on the leader’s power to offer rewards and on the importance placed on them by group members. An usual form of “pull” strategy is offering praises, professional recognition and respect when a person shows a desirable conduct. Offering material rewards tends to be efficient mostly in short term because, once the reward is given, the receiver tends to consider “the deal” done, and further motivation requires more rewards.

Persuasion strategies focus on giving arguments and, generally, appealing to reason, on reaching consensus on a giving subject. Because of this, this strategy relies heavily on the expertise and personal powers of the leader, as well as on a very good knowledge of the people on which it is applied.

Preparation strategies focus on insuring the optimal conditions for future persuasion efforts, they rely on the personal and, usually, social powers of the leader, on ensuring good relations with the person or group in question or, in a larger picture, with the stakeholders of the organization.

Prevention strategies are aimed at avoiding undesirable situations, either by defusing them or by blocking them, or the people that might conduct them, before they have a chance to occur. The degree to which this kind of strategies are allowed depends on every particular group or organization, in many cases there use being unadvised.

It has to be said that the existence of the various, and sometimes even conflicting, theories about leadership, the acknowledgment of power bases and influence strategies available to leaders, as well as the various models that facilitates there understanding, are just useful tools and can not guaranty the efficiency of a person as a leader, being in no way a substitute for experience. Usually a person can become a proficient leader only thru practice, by analyzing the problems he faces, and the less then optimal decisions he took in the past. From this point of view leadership is not a subject that can be mastered exclusively at a theoretical level.

#### **4. The TeamWork association: a case study**

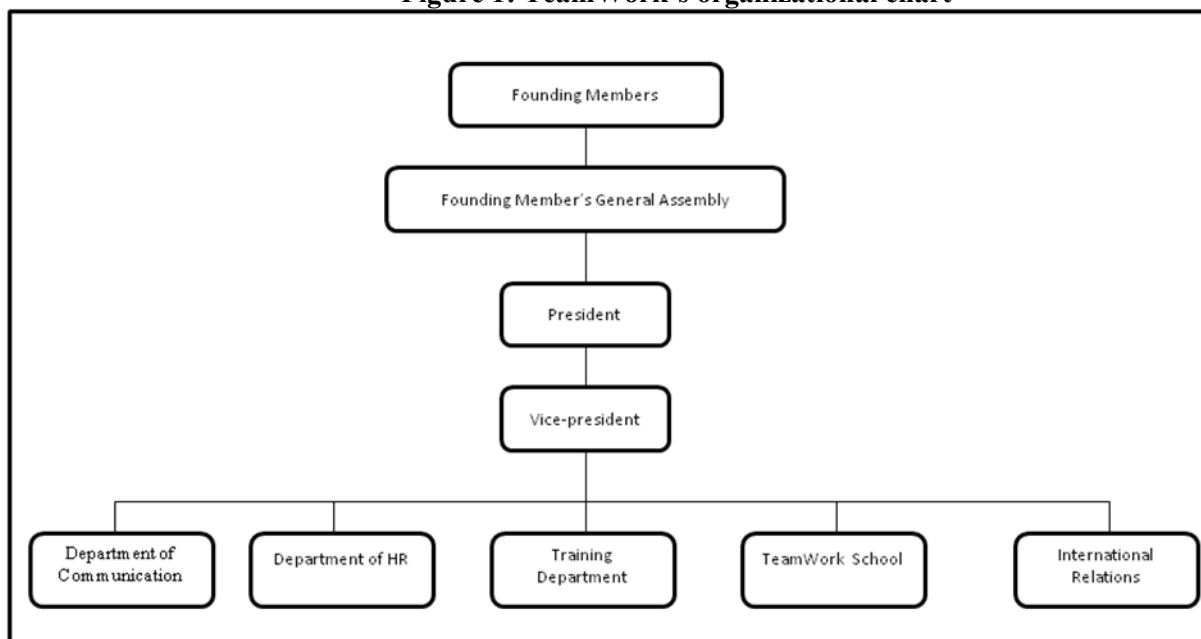
Understanding the relationship between leadership and power, viewed both as a means of influence and an action, is made easier by analyzing organizational dynamics. To highlight both the visible and the hidden links between the various organizational leadership components, we considered it useful to present the way they occur in the case of the TeamWork association.

To aid students in developing leadership skills, in spirit of what we mentioned above, the TeamWork association functions in the Faculty for Administration and Business since 2002. It is a non-governmental, non-profit organization for young people focused on learning thru project management; it is structured on departments, comprised of and managed by young people, replicating the structure of a company. The organization also has an important civic orientation, aiming to offer its members, and youth in general, contexts in which they can grow as people and as professionals. This department based structure also offers members the opportunity to gain useful leadership capabilities regardless of the place they hold in the organization or of the activities that they feel close to.

Below we offer a brief presentation of the structure of TeamWork along with its main projects as presented on its website (<http://www.teamwork.org.ro>). The following organization chart can help us better envision the importance of leadership at the level of a system and the correlation it has with the optimal distribution of power throughout a network.



**Figure 1: TeamWork's organizational chart**



#### Department of Communication

The Department's of Communication activity follows two major directions: internal and external. Internally it's objective is to insure the flow of information to and from members of every department, while externally it has the role of maintaining proper ties with other organizations (NGOs, advertising and PR agencies, mass-media, sponsors, etc.) and promote TeamWork among students and youth in general.

The members of this department aim to find original and creative ideas for implementing new projects that are both meaningful and visible without generating high costs. To this end the members try to adjust to the use of new-media, each project being mostly promoted on-line. The efficiency of this department is reflected by the number of successful project it implemented (Botanic Garden- my city's Garden, the Open Amphitheatre, 2% for TeamWork, TAC- Think-Act-Change, etc.).

#### Department of HR

While documents, achieves, data bases, contracts, signatures, questionnaires would be the terms that best describes this department's activity in short, it also has the very important task of identifying suitable candidates and volunteers for TeamWork and insuring that they integrate smoothly in it's the organizational culture.

#### Training Department

This department has a key role inside TeamWork, as one of the main objectives of the organization is to prepare students for entering the labor market, an thus combat the widespread opinion that, upon graduation, students have theoretical knowledge but lack practical, applicable skills. To this end the department holds various training programs aimed to help students acquire useful new skills, especially soft skills, in an informal atmosphere in keeping with the concept of permanent learning.

#### TeamWork School

The mission of this department can be summarized best by it's motto "Learn by teaching others". It's purpose is to facilitate, through voluntary work, the integration of young people from disadvantaged backgrounds in society. To this end the department has initiated various partnerships with foster schools and high schools from impoverished areas and tried to helps as many people as possible gain access to higher education.

## International Relations

This department offers members of TeamWork the opportunity to participate in, or even launch, international exchange programs, with a powerful inter-cultural focus. These projects, financed through the Youth in Action program, or by private sources, help the participants better understand and accept cultural differences and allow them to acquire extracurricular knowledge in an informal environment.

Inside TeamWork the democratic leadership style was adopted by which all major decisions were taken after consulting all department coordinators and members, in all the activities of the association a style of management that balances the interest for production and the interest for people (see the Blake Mouton model) was used, that way TeamWork also became a school of management in which the people in charge tried to give all members the opportunity to hone their leadership skills. We would like to mention that in the last 10 years TeamWork helped over 1000 students many of whom are now Ph.D.s, managers, consultants or professionals in various fields.

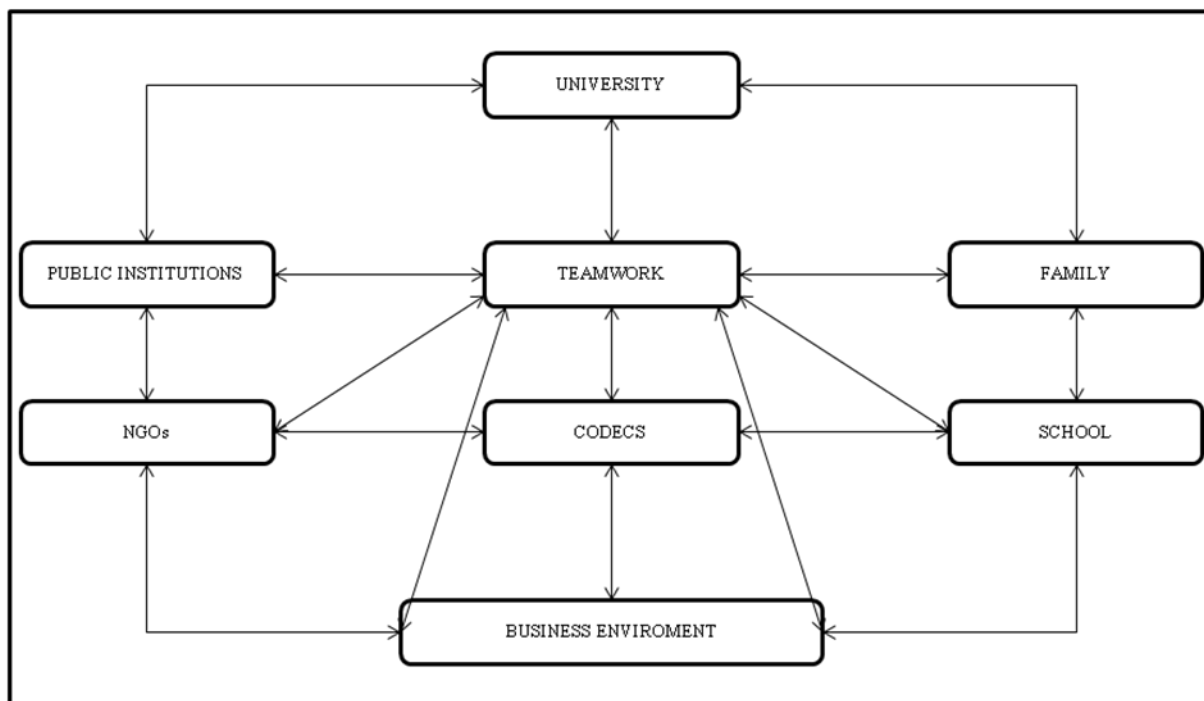
The selection of students to enter TeamWork was done by using criteria similar to those of the business environment, so the organization attracted people with skills regarding working in a team, persistency, the ability to finalize, etc. The personal development of members is a mix of leadership skills and strategies of influencing the behavior of group members. Power was distributed by the management team to each individual member of the organization, with regard to the contexts created and personal merits (Figure 1).

The power of information gained a particularly important place as each member of the association realized that when career is concerned knowledge represents an essential strength. The students who gained experience in top fields (IT, foreign languages, business, etc) discovered that this offered them the invaluable power of expertise. The department coordinators have also obtained the power of position and the power of hierarchy and, to some extent, social power. At the level of the organization we can talk about a meritocracy because the access to the above mentioned sources of power was based solely on personal merit. In the personal development of members all types of influence strategies were used: “push” strategies, “pull” strategies, persuasion, preparation and prevention strategies in connection with the contexts in which the teams had to perform but also with the objectives the association has had during its existence, because of this the members of the organization understood that that you can have the power to influence others, but at the same time you have to use it with regard to morality and ethics both in normal and in special circumstances.

In Figure 2 we suggest the way in which synergy can play an essential role in syncing TeamWork’s activity with that of other socio-economical entities (family, school, NGOs, public institutions, the business environment).

Synergy can become the connector between the complexity of leadership and the force of power distributed along a network because it can assure a multiplying effect based on value generating collaborations. The synergic effect is also based on the thorough knowledge of members in partnerships at both intra-organizational and inter-organizational levels.

### **Figure 2: TeamWork, a synergic system**



Leadership, power and synergy represent concepts which define the realities in which people act, and we can actually talk about today's virtual realities becoming the realities of tomorrow, that is why the ability to influence contexts and people today can be the source of future challenges. Leadership has to make the best use of people but, at the same time, has to help them develop according to carefully chosen value systems, we are talking here about organizational culture that can become a liaison between the members of each group and a force that helps them reach the organizational goals.

Synergy can facilitate the relations between various entities, offering each of them the chance to increase its performance by syncing its activity with that of various stakeholders.

## 5. Conclusions

In analyzing the leadership of an organization we have to use concepts borrowed from different fields such as management, marketing, psychology, sociology, anthropology etc. that is why, in this paper, we took the liberty to make short referrals to those fields, which demonstrate once again that leadership represents the capacity to apply a set of principles from various areas in contexts that are often hard to decipher at a first glance. Leadership means training but also diversity in organizational relationships, which are more often than not unstable and which create the need for motivating there members. One form of motivation is the distribution of power along a network (in its ability to influence people and realities) according to each member's merits.

Leadership is the engine of an organization, but one that depends on a "spark", a part of which is power. Different models of leadership and cultural differences lead to an idea that became more and more tangible, which is that of global leaders, leaders who act in inter-cultural environments.

Multi-cultural awareness becomes (along with power) a form of motivating the members of an organization, if it is used as a way that bring different interests and ideals in tune if, however, it is used in the opposite way it can be (as power distributed across a network in a flowed meaner) a cause for organizational meltdown.

## 6. References

- Blake, R.; Mouton, J. (1964) *The Managerial Grid: The Key to Leadership Excellence*. Houston: Gulf Publishing Co.
- Hunt J. W.; Baruch Y. (2003) Developing top managers: the impact of interpersonal skills training, *Journal of Management Development*, 22 (8), p. 729 – 752.
- Lewin K., Lippitt R., White, R. (1939). Patterns of aggressive behavior in experimentally created social climates, *Journal of Social Psychology*, p. 271–301.

- Vries, M. K. (2003) *Leadership: arta si maiestria de a conduce*. Bucuresti: Codecs.

# MANAGEMENT CHALLENGES - A PREVIEW IN FUTURE OF CAPITALISM -

**MIHĂESCU Liviu**

<sup>1</sup>*professor, Ph.D, Faculty of Economic Sciences, „Lucian Blaga” University of Sibiu, Romania,  
[liviu.mihaescu@ulbsibiu.ro](mailto:liviu.mihaescu@ulbsibiu.ro)*

**MIHĂESCU Diana**

<sup>2</sup>*assistant professor, Ph.D., Faculty of Economic Sciences, „Lucian Blaga” University of Sibiu, Romania,  
[diana.mihaescu@yahoo.com](mailto:diana.mihaescu@yahoo.com)*

**Abstract:** *The economic crisis comes in the context the deepest political crisis faced by the EU today. Economic catastrophe led to the strongest economic crisis since the '30s. Downturns were commonly explained using technical arguments, economic or financial reasons. Because they were discussed by experts in language often inaccessible, so often we face today and dangerous misunderstanding of the population crisis. When talking about economic crises tend to forget that they come in a political context, social and cultural. At the same time, how society reacts to the crisis is decisively influenced by the values it embraces.*

**Key words:** capitalism, management, cultural patterns, efficiency

**JEL classification:** D63, H12, P11

## 1. Introduction

Performance concept is associated with three concepts: economics (purchase necessary resources to low cost), efficiency (maximizing the results obtained from a given quantity of resources or to minimize obtained to achieve expected results), Ristea M. (1997) and efficiency (which saves time, while efficiency is synonymous with saving resources), Niculescu.M (1997) the passage of time, capitalists have always taken account of these key elements.

$$\text{Performance} = \text{economy} + \text{efficiency} + \text{effectiveness} \quad (1)$$

The performance of a firm or an economy defined by productivity and efficiency, productivity representing the ratio between results and the means employed to achieve results, and effectiveness representing the ratio between results and expected results.

$$\text{Performance} = \text{productivity} + \text{efficiency} \quad (2)$$

Interestingly, and following these elements, the current crisis started with financial turbulence, people have lost money, continued with an economic crisis, in which GDP fell, and generated a social crisis, in which million people lost jobs. The current turmoil is the product of a crisis of Western cultural model, the crisis caused by removal of core values that led to the initial rise of the West.

## 2. Management models of capitalist economy

The problem is not so simple: the current economic problems of the periphery of the euro area due to inadequate economic policy among others. Southern and Northern Europe are two different economic types. The difference between South and North is immense. South is “another civilization”, another economic model operating in conditions like “exchange your surplus with my surplus”.

In fact, capitalism has proven extremely versatile system, which has folded the civilization and cultural particularities of states. In Europe for example, have coexisted three distinct models of capitalism and another one is of Asian origin:

a. On the one hand, *Anglo-Saxon model* is characterized by entrepreneurship and private property, the non-interventionist state, regulatory requirements, with a social system, individual responsibility and greater risk tolerance, with funding provided mainly by the stock exchanges;

b. Another is **continental northern Europe** model developed, which is based on stricter norms regarding economic life, solidarity and stability, with focus on long-term goals, redistribution and important state role in society. The area is particularly characteristic of German and Scandinavian, and has aversion to debt accumulation.

c. *The southern European countries model* characterized by weak and bureaucratic state, laxity of laws, inadequate infrastructure, high structural deficits and individualism. This was doubled in many cases by a significant black economy or parallel economy.

d. *Asian model of capitalism* is characteristic in Confucian culture, in which coexist with authoritarian state capitalism. Confucianism values the mutual consent stability, earnest work, discipline, frugality and education. The values of this system are similar to those of early Protestantism.

All these models have reacted differently when they were confronted with the crisis. Crisis in peripheral European economies emphasized the violent protests and partisan spirit of individualism, deficits became unsustainable, and states and society became increasingly worse to the crisis. As a sign of lack of solidarity and social cohesion, a part of the elite has tended to move their accounts abroad to make them safe from any taxation.

The Anglo-Saxon tried to keep the economy afloat accepting substantial budget deficits, putting growth before maintaining macroeconomic balance. Although social protests following the crisis, they were rather restricted and largely non-violent.

Better resisted was the European continental model, where social cohesion has allowed reaching several agreements that they could keep their jobs, the burden is divided between the state and the private sector (as is the case of Germany).

Very interesting was the response to the crisis due 1997-1999. The Confucian culture, that arises from the accumulation of unsustainable deficits, which was financed externally. This development model has a departure from Confucian values. The states from South East Asia have responded with tremendous social solidarity (ie South Korea). This social cohesion allowed them to rebuild their economies and to establish sound fiscal practices, which they obtained the trade surplus to be invested in other countries (especially in the West) to avoid dangerous effects of inflation and local currency appreciation .

### 3. Some causes that contributed to the failure of the capitalist economy

This financing with cheap money from Asia contributed directly to the current crisis facing Western countries because Western economies for two decades have allowed a significant proportion of the population to immigrate. Also many companies extend more over than possibilities in terms of credit, and led to the accumulation of bubbles.

However, the origin of the present problems of Western capitalist economies are substantive and changes in Western culture and collective mind changes that put into the center to obtain personal satisfaction, immediately and at any cost, even by sacrificing the future. From savings and prudence, it was so in debt and greed, and this was reflected individual greed and corporate environment. The main objectives were financial indicators, that short term profitability, business sustainability is not implemented or their social role. Exclusively on profit-orientation at all costs and increased risk appetite led in some cases fraud.

Looking to cut costs, Western capitalism has implemented out-sourcing and relocation of production to emerging countries. Were obvious advantages for companies, lower costs, increased profits, and shareholders were satisfied.

Export jobs but productive thinned middle class and increased income inequality has polarized society. There was a gap in the way it is perceived economic value of companies and their social role. It is not without significance that it was that a company like Facebook, which has several thousand employees, some of them in emerging countries, to be evaluated between 80 and 100 billion dollars, while companies and producers of goods general Motors, which has 200,000 employees, to be valued at the exchange at about 40 billion dollars.

Neoliberal principles that influenced, including free movement of citizens are put to the test, as some states do not allow free access to the labour market. Dissatisfied voters is tempted to accept anti-immigrant populism.

In 1957, the Treaty of Rome laid the foundations of what was called the European Economic Community, seeking to create a common destiny with a „union ever closer.” But in Europe there are regional and national differences in the way of thinking and acting, which in the past 50 years have not disappeared, but still. French view of the state is different from that of Britain. The concept of law is different from German to Italian and Romanian. The level of taxes that people are willing to pay is different from Danish or Greek.

All these differences actually show a lack of unity that can explain part of Europe's economic and political failures. European values such as *freedom, democracy, human rights, rule of law*, are refined and interpreted differently in West and East, as Christopher C. (2009) shown. Europe has experienced unprecedented demographic changes brought about in the age structure of population of mass immigration. Immigrants who have arrived have taken place values as **tolerance, equality, rule of law**, but their values were imported. Consisting of a multitude of nations with different cultural elements, Europe still has to adhere to common values across its entire population.

A lot of differences between EU Member States are raised by law, diversity and solidarity, which however are not only their own values. Prosperity was present in Western Europe after the Second World War, while its east was present tyranny, which in economic terms has led to a poor allocation of resources and inefficiency, which has resulted in a welfare loss of the entire population.

„Unity in Diversity”, the EU motto, automatically determines and accepts of all differences, which became evident as the deepening crisis strained relations that emerged between its members.

#### 4. Solutions and trends

The middle class has played over time, especially after the Second World War, a fundamental role in the evolution of societies that have embraced liberal capitalism, bonuses allowed for growth of large numbers of people and backbone of the democratic system. Erosion of the middle class in recent decades has brought with it a certain weakening of democratic values and allowed the rise of populism and extremism at the expense of moderation.

Liberal capitalism needs a very active middle class to survive. In Western countries, the crisis can be made and on behalf of its decline. In Eastern Europe, the crisis can be put more on account of absence or fragility of the middle class. Instead, globalization creates the conditions of the middle class rise in Asian countries.

Returning to the original model of capitalism that is *earnest work, discipline, innovation, savings and accumulation* could be a chance of saving the states in crisis. As seen, *cultural patterns can be changed if social and political will for such a transformation*. This requires leadership and assuming the risks inherent politicians to adopt unpopular measures.

The fact is that long-term sustainable development, reducing inequality and respect for human beings should be part of the priorities of economic, social and cultural needs of the new capitalism in Europe.

The Romanian economy, trade liberalization has allowed foreign companies to destroy local industries in developing practical and free movement of labour is translated only by attracting specialists in developed countries, Bodea D. (2011).

In the early '80s, when concepts that circulate mostly post-industrial society or economy services, imposed new economic theory of „comparative advantages” which argued that the future was in services and high technology as advanced economies such as those of U.S. and EU, have restructured the line moving energy-intensive industries and labour in the north to the south. Relocation of industries, which meant jobs for those willing to work hard for a token pittance, (eg Lohn for the textile industry, and others), but leading to a strong de-industrialization in the north without the development of large losses can offset the jobs and income (reindustrialization process would be desirable, but He was not a serious concern for public authorities).

Relocation to favoured corporations, which have made huge profits, and consumers have benefited from relatively low prices of imported products, but created imbalances and deficits have exacerbated the issue of external debt and pressure on budgets net importing states, Ridderstrale J., Nordstrom K. (2007).

Deindustrialization is one of the causes, not one, the structural imbalances that affect the world economy: the East and Southeast Asian produce much and save too much, while developed countries in

Europe do not produce enough and spend too much, leading to major imbalances in international trade, which explains in part the financial crisis of 2007-2008 and the EU caused by sovereign debt.

Excessive market fundamentalism, inspired by the ideas of Milton Friedman, has negatively affected the less wealthy and more on the rich and the very rich.

But not only tinting problem interventionism public authorities is important, but also stimulate the excessive consumption through demand-driven policy or brazen consumerism has its relevance, because an influential economist Robert Mundell noticed as well that offer focused policies can bring more jobs and necessary restructuring of the global economy (green energy, clean industries based on high technology, performance and useful services company).

Another cause of inefficient management solutions successfully applied developed capitalist economies of western Romania is determined by the corruption that is largely due to lack of transparency in economic, social and political.

## 5. Conclusions

Economy tends to be self-regulated. It is therefore important purpose of self-regulation, and the people are the ones who have to give a good trajectory. This is hard and difficult to achieve if we have a good specialist in charge. The last census shows that Romania's population declined. Unfortunately, many of the best people who once were very "salt of the earth" at home, work or community were emigrated. Romanians were left looking for models, examples, figures able to inspire seriously to work more effectively in our country to cover domestic consumption in order to increase welfare and combat ineffectiveness.

Inefficiency, the fundamental issue, the Romanian economy is causally determined by a non-correlation between domestic production and domestic consumption. In such circumstances, the people decide, rationally that it is better to restrict their consumption, and the little left to put the thing away. And not just because of the crisis, but because memory has learned that history repeats itself, and the shock comes after another and still another (low wages by 25%, followed by increased VAT and so on). And as any living man learns and adapts, and determines to set aside logic, because nobody knows what will invent new tax, or what other problems may arise. And that assumes rationality and careful use of available resources.

Decision to apply a management model suitable for Romanian economy is to lead to effective use of resources which must meet several requirements, including:

- a. ***being a professional, scientifically***, and adapt to present the economic, social and political, in accordance with appropriate scientific tools that remove empiricism, improvisation, routines, voluntarism;
- b. ***to be empowered***, in that it must be adopted by the governing body whose task is stated explicitly, and the decision maker must have the skills, knowledge and skills that decision, both at macro and wide micro;
- c. ***to be clear, concise and non-contradictory, to arise from coherent policies and strategies*** and in formulating the course of action, to state briefly, but comprehensively all the necessary operational, so do not give rise to ambiguous interpretations, on objective means of implementation, implementation dates and responsible with implementing the decision;
- d. ***to be appropriate, optimal***, to fit between development and operationalization. This requirement is based on the idea that it is preferable to a good decision, taken in the range according to a very good decision, taken late. Compliance is increasingly necessary measure to accelerate the pace of change and increasing complexity of business decision problems.

Increased efficiency at the macroeconomic level and microeconomic level also can be achieved by reforming the national economy, the cultural pattern, which should start with the management science applied to the Romanian economy, monetary policy focused on combating inflation ignored financial market fragility and monetarists not have envisioned the failure of financial markets can cause much larger population than inflation. Return to the ideas of Keynes, reconsidering the role of fiscal policy and industrial policy, sustainable development and profound restructuring of real and nominal economy can be a recipe for management more effective and more humane capitalism, because capitalism which the prosperity of most population is not a true democracy, but anachronistic perpetuation of oligarchic system that has nothing to do with meritocracy and equal opportunities, principles which have ensured the success of American capitalism origin, Roubini N., Mihm S. (2010).



Lack of Romanian economy leads us to say *that the state can not multiply wealth by dividing it. What one person receives without working for it, must be produced by someone, and then the manufacturer will not get anything that worked. State can not give someone something without being taken before anyone else.* When half the population sees that he can not work because the other half will take care of it and the half who worked out that no longer work so that others are beneficiaries of their work, then surely it is end of any nation.

## 6. References

- Bodea D. (2011), *Românii, un viitor previzibil?*, Editura Result, București
- Christopher C. (2009), *Reflections on the Revolutions in Europe*, Doubleday, New York, 2009
- Niculescu.M (1997), *Diagnostic global strategic*, Editura Economică, București
- Ridderstrale J., Nordstrom K. (2007), *Funky Business*, Editura Publica, București
- Ristea.M (1997), *Contabilitatea rezultatului întreprinderii*, Editura Tribuna Economică, București
- Roubini N., Mihm S. (2010), *Economia crizelor*, Editura Publica, București

# HOW SOCIAL RESPONSIBILITY IMPROVE THE INNOVATION POTENTIAL OF COMPANIES. EVIDENCE FROM ROMANIA

*MILITARU Gheorghe*

*Associate professor Faculty of Entrepreneurship, Business Engineering and Management, Department of Management, Politehnica University of Bucharest, Romania, ghmilitaru.militaru@gmail.com*

**Abstract:** The aim of this paper is to determine whether the corporate social responsibility influences or not the innovation potential of companies. The study is based on a quantitative research made on a sample of companies from Romania regarding their innovation potential and how the social responsibility initiatives can improve it. The research provides evidence that many firms believe that social responsibility initiatives can have a positive effect on their innovation potential, but in practice few of these use corporate social responsibility as a strategic driver for innovation. However, considerable differences can be observed between industries and firms.

**Key words:** corporate social responsibility, innovation, social value, sustainability

**JEL classification:** M14, O31, C12, C51

## 1. Introduction

Corporate social responsibility (CSR) is defined by the European Commission (2010) as “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis”. We define CSR as voluntary corporate commitment to exceed the explicit and implicit obligations imposed on a company by society's expectations of conventional corporate behaviour. That is, CSR represents voluntary firm endeavours which benefit society.

The aim of this paper is to determine whether the corporate social responsibility influences the innovation potential of companies. Despite the effects of financial crisis, innovation is the key to progress. Company need to cultivate a safe and respectful work environment where employees can create and innovate. The safety and wellness programs help employees enjoy a better quality of life and a very good work-life balance. Environmental initiatives have impact throughout the different stages of product life cycle, from research and development to end-of-life management. Sustainable development requires management of energy consumption, air emissions, reduce water consumption, and resource conservation. Company must examine its resource productivity and reduce total resource loss, including waste recycling. Identify solutions to increase the recycling/recovery rate by develop recycling technologies and expand usage of renewable resources.

Our study attempts to fill the gap in the corporate social responsibility literature by examining relationship between social responsibility and sustainable innovation. A review of the empirical evidence presents how sustainability creates new opportunities. The key objective of this study is to examine the role the CSR activity play to improve the companies' innovation potential. CSR creates a favorable context that positively boosts consumers' evaluations of attitude toward the organization.

The study is based on a quantitative research made on a sample of companies from Romania regarding their innovation potential and how the social responsibility initiatives can improve it. We develop a conceptual model and test a set of hypotheses predicting the influence of social responsibility initiatives on the innovation potential of firms.

Findings from our study make several contributions. First, we find that many firms believe that social responsibility initiatives can have a positive effect on their innovation potential, but in practice few of these use corporate social responsibility as a strategic driver for innovation. Second, our study attempts to fill the gap in the corporate social responsibility literature by examining relationship between social responsibility and sustainable innovation. A review of the empirical evidence presents how sustainability creates new opportunities. Third, considerable differences can be observed between industries, and even between firms within an industry, in the importance of social responsibility and innovation. Fourth, some companies from transportation and manufacturing industries are concerned to develop technologies to achieve the best fuel efficiency performance and reduce CO<sub>2</sub> emissions and PFCs in their operations, for example, low CO<sub>2</sub> – emitting production technologies. The overall implication that can be drawn from the findings consist in identify a harmony between people, society and environment, and sustainable development of society through innovation. In addition, ethical climate can influence social performance

because innovation and creativity of employees and cultural dimensions are considered the underlying determinants of organizational performance.

This study provides statistical evidence as to the role of social responsibility initiatives to develop dynamic capabilities and generate competitive advantage. The originality of the paper comes from the exploration of the innovation potential of Romanian companies from sample by influence of social and environmental initiatives. Finally, a discussion about the theoretical and managerial implications precedes the conclusions with the study's limitations and directions for further research.

## **2. Background and Hypotheses Development**

Social responsibility, according to Carroll, includes both ethical and discretionary, but not economic and legal responsibility. A social responsibility may provide a company the social capital that can be used for competitive advantage, Carroll (1979). In this case, corporate sustainability focuses on the following areas: ethics, governance, business relationships, transparency, community involvement, product or service value, employment practices, and environmental protection, Daft, (2010).

Corporate social responsibility is essentially a concept whereby companies decide voluntarily to contribute to a better society and a cleaner environment, Sprinkle and Maines (2010). Practically, companies should use the CSR initiatives as a solution to reduce the risks and operational costs. Today, only a few number of companies, especially those from developed countries, have understood that CSR initiatives can be used as an efficient support of innovation. Firms try to obtain competitive advantage based on upper social performance or differentiation through the mode what seek to satisfy the requirements of stakeholders. As a consequence of low interest, the civil society play a marginal role in CSR dynamics.

Few studies have focused on the strategic aspects and benefits of CSR and the gains to society from these actions. There has been little consideration of the CSR initiatives and innovation performance because it is difficult to evaluate the benefits of this activities. The use of CSR to capture value for the firm was first referred to as „strategic” CSR by Baron (2001). Firms can capture the value of social initiatives through the effect on the firm's reputation. An enhanced reputation can be a strategic resource because it can lead to ... attract a human capital valuable human capital. For example, employees can be a strategic resource when they are more creative and innovative than the employees of other firms (McWilliams and Siegel, 2011). CSR initiatives constitute a key element of corporate identity that can induce customers to identify with the company and create a very good climate for creativity.

Michael Porter and Mark Kramer have remarked as „in the long run ... social and economic goals are not inherently conflicting but integrally connected” (p.5). They have realized that many economic investments generate social return and many social investments have an economic impact and they are focalised over create and development of social capital, Porter and Kramer (2006). Therefore, companies need to integrate these two approaches through intensification of innovation efforts, but the results would consist in generation of economic and social benefits, Porter and Kramer (2002).

Globalization intensify the pace of changes. An overall competitive economy emphasizes the innovation, but this approach depends on human imagination, motivation and collaboration. Social responsibility often generates the experiences that leading to improve the knowledge level and, implicitly to innovation of products, processes or business models. Rosabeth Moss Kanter has realized as „the attention placed on social needs often generates ideas that lead to innovations” Kanter (2011). The overwhelming rationale for companies to engage in CSR actions is long-term profitability linked with corporate efficiency. CSR engagement is seen as providing opportunities for competitive advantage through differentiation. The commitment to voluntary activities in the field of CSR will help them increase profitability in the future.

CSR activities focus on meeting customer desires and protecting future generation, companies want to delight consumers with sustainable innovations, Sprinkle and Maines, (2010). CSR initiatives are extrinsic cues to consumers with low, rather than high, levels of expertise. In addition, structural capital defines network characteristics, knowledge sharing and strength of social interactions. Improvements in innovation performance through collaborative relationships are increasingly critical to service design, delivery process design, ability frontline employees to customization of service (Lawson et al., 2008).

The level of education quality and research activity in a company are the prime determinants of the innovation capacity. The innovation potential of the company is sustained by quality education, and a skilled workforce. Through education initiatives companies are helping communities build local capacity to improve education. The education initiatives are materialized to grant scholarships, endowment of laboratories or schools modernization, all together contribute to increase the professional level of

employees. The innovation potential depends of the human resource quality attracted, and education has an critical role to realize this goal, Smith (2008).

Through „base of the pyramid (BOP)” companies are focalised their efforts on development of products or services what meet the consumers needs and answer at the social problems of community, Prahalad and Hammond (2002). For example, firms make investments to develop products or services for markets from all the world. Firms can create the rewarding markets while they meet the pressing needs of the poor people. They may use the social problems as a source of the new opportunities while they solve the pressing social needs. We formulated hypothesis H1 in order to clasify this relationship.

H1: The social initiatives are positively associated with the level of innovation potential

Environmental initiatives have impact throughout the different stages of product life cycle, from research and development to end-of-life management. Sustainable development requires management of energy consumption, air emissions, reduce water consumption, and resource conservation. From a medium to long term perspective fossil fuels are finite and energy diversification is essential. Company need to develop technologies to achieve the best fuel efficiency performance and reduce CO<sub>2</sub> emissions and PFCs in their operations, for example, low CO<sub>2</sub> – emitting production technologies. Company designs its product to be energy-efficient, utilize environmentally preferable materials, and be capable of being reused, recycled or disposed of safely at the end of their useful lives. Company must examine its resource productivity and reduce total resource loss, including waste recycling. Identify solutions to increase the recycling/recovery rate by develop recycling technologies and expand usage of renewable resources. Some companies implanted measures to simplifying wrapping operations and expanding the utilization of returnable shipment containers. Energy conservation and environmental protection, closely collaborates with business partners across the value chain, and promotes sustainable development of the industry. Harmony between company, peoples, society, and nature is extremely important. Hence, we develop the following hypothesis.

H2: Companies with safe and respectful work environment are more likely to attract and retain skilled talent employees to improve innovation

Employees give a company its primary source of competitive advantage, so talent management is a top priority for smart managers. A company need to have access to the highly skilled talent to remain competitive by recruiting and cultivating the best talent. Workforce diversity increases innovation potential through a broad diversity of talents and views. In addition, the company need to encourage creative behavior and foster innovation by reward programs, cultivating open and direct communications, and investing in career development and leadership.

The goal of every company is to maintain viability through long-term profitability. Corporate initiatives that use core competencies to enhance social welfare. Socially responsible practices may create savings and, as a result, increase profits. Company need to cultivate a safe and respectful work environment where employees can create and innovate. The safety and wellness programs help employees enjoy a better quality of life and a very good work-life balance. Companies need to encourage employees to evaluate, improve and maintain their health care and safety work. Thus the employees are physique and mental at their maxim potential of creation and innovation. Staff motivation is a powerful bottom-line benefit of corporate responsibility. Thus, organization supports the development growth of ideas from innovation to delivery and working environment where inspiration thrive and creativity flourishes. In addition, working externally and internally with organization and specialists who have the strongest capabilities for innovation is a greate opportunity. Hence this study will examine the health care and safety work in the relationship between CSR and inovation by testing hypothesis H3.

H3: The higher the extent of health and safety care of employees, the higher the level of innovtion potential

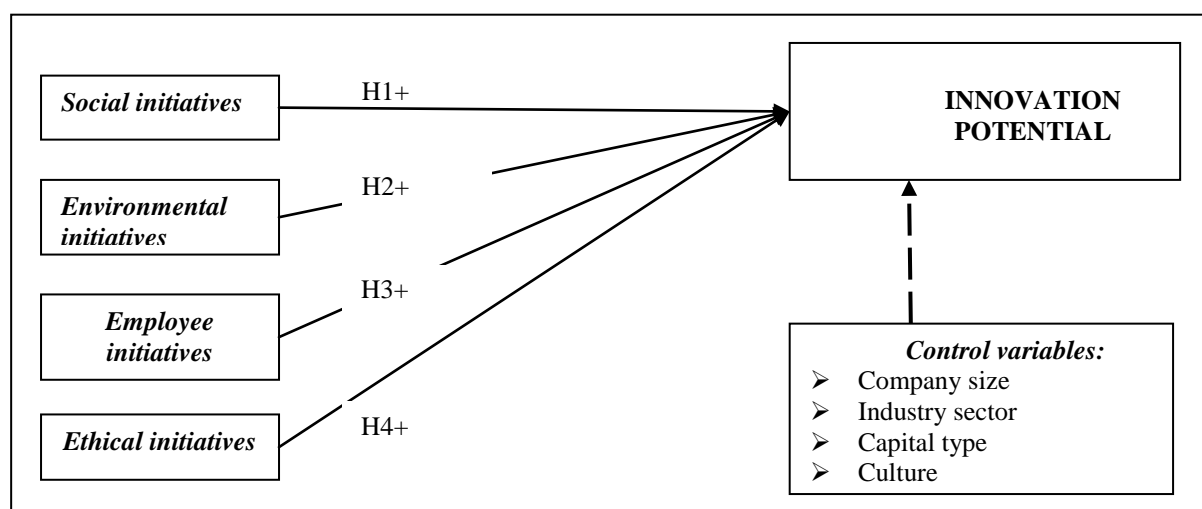
Ethical responsibilities are obligations that transcend legal requirements. Ethical business practices, operates with integrity. Firm promotes fair operations, and opposes bribery, corrupt activities, dumping, and so on to build a harmonious business environment. A few studies have examined the impact of ethical issues on social performance. Innovation is by its nature experimental, and so there are often risks associated with way in which the research programmes are elaboration and are assessed the results of

innovation. Team work, conflicts of interests, the workplace satisfaction, diffusion of new innovations into organization, the transparency of financing the innovation projects, adapted innovation at requirements of stakeholders, respect for human dignity are key drivers of innovation and creativity of employees what is based on solve the ethics problems for organization. Therefore, ethical climate can influence social performance because innovation and creativity of employees and cultural dimensions are considered the underlying determinants of organizational performance. Hence, we develop the following hypothesis.

H4: Ethical considerations will lead to increase the innovation performance

Innovation requires a variety of competencies at key stages in the innovation cycle. In addition, innovation is extremely complex concept and multi-faced and requires integrative thinking. On the basis of consulted literature and following one pilot study we have got to the followings dimensions of the innovation potential: the number of new or improving products and services, the number of developed processes, the number of patents, the number of new ideas, new technologies, new businesses patterns, networks and alliances, innovation climate, innovation talent, reputation for innovation, and time to lunch new products on markets. Our theoretical arguments and hypotheses are summarized in the conceptual model shown in Figure 1.

Figure 1: Conceptual model of how CSR influences the innovation potential of companies



### 3. Research Method and Data

We tested the hypotheses in our model by examining the perceptions of respondents about influence of CSR initiatives on innovation potential of companies. We tested a series of statistical hypotheses using ANOVA method. At the beginning were calculated the descriptive statistics: means, eta and standard deviations for the dependent, independent, and control variables. The second stage is dedicated to conduct an analysis to identify the differences between various companies groups by comparing means. Finally, a multiple classification analyses is used to find out the extend to which the CSR predict the innovation potential.

The target group aimed in this study consist of companies with Romanian or foreign capital of different sizes that operations in services field or manufacturing, indifferently of the industry sector in which the company operation. Our sample was drawn from Romanian companies and it consist of 28 companies (N=28). The structure of sample reproduced good enough the structure of population from which it has extracted. The sample was realized by random extraction of items form statistical collectivity by „sampling without replacement”. Data were collected in 2011 using as primary source from data base consist of companies registering in the National Trade Register Office, Romania.

To realize a quatitative research we have elaborate and validate an structured questionnaire. As a result, we have organized an focus group to identify the main problems refer to the knowledge level and the way in which the CSR initiatives can be used to stimulate the innovation in companies. Within our sample, 58 percent were service companies, 80 percent were SRL, and 8 percent multinantional branches. The

respondents belong to the management of companies. We have thought the management has enough knowledge and information about CSR activity and the innovation potential of companies. Based on the feedback from the participants in a pilot study and literature, the research procedure, description, and questionnaire items were refined. Practically, in this study has only been considered the initiatives which potentially should influence the innovation potential of companies. The subjects filled the questionnaire concerning what social responsibility initiatives were important to them as drivers of innovation potential. The questions were measured on Likert scales of 1-7. There were altogether 16 questions about CSR initiatives.

#### 4. Measures and Results

The dependent variable in our study was innovation potential. This variable can be measured by the aggregation of more drivers: the number of new or improvement products or services, the number of new or improvement processes, the number of new technologies, strategies, structures, procedures or policy, development in the last three years. In our study the innovation potential was assessed by the importance of innovation of new operating processes, products or services in organizations. Respondents were asked to estimate the following statement: „the innovation of new operating processes, products or services is an important value in your organization”. Subjects completed and returned a total of 25 answers, which constituted a response rate of 89.3 per cent. The quantitative research need to define the innovation potential score by IPindex. The innovation index seeks to measure the wider forms of innovation and to present the results comprehensively at both the aggregate level of individual innovation. The survey was designed to examine the strength of innovation with the CSR initiatives of organization activity by enhanced reputation and credibility organization building better relationships with stakeholders.

The next variables training and education initiatives, developing career of employees, poverty initiatives, the reaction of company to social needs, employees' satisfaction, employees' motivation, health and safety, energy and climate, reduce CO<sub>2</sub> emissions and PCFs, reduce water consumption and resource conservation, recycling of resources, ethical responsibility, open innovation, ethical innovation, and ethical considerations altogether are measured by using a scale of 1-7 ( 1= “not at all important” to 7=“very important”).

Subjects were asked: “involvement in education programs dedicated communities is an important value in your organization”, “involvement in developing and utilizing employees is an important value in your organization”, “innovative efforts to develop new products or services to meet the needs of poor people (Base of the pyramid – BOP) is an important value in your organization”, “the reaction of your organization to social needs is an important value in your organization”, “attraction and restraint the best talents is an important value in your organization”, “concerned about work environment, career development, decision making, and compensation systems is an important value in your organization”, “concerned about the health and safety of employees is an important value in your organization”, “concerned about utilize the renewable sources of energy is an important value in your organization”, “concerned about reduce CO<sub>2</sub> emissions and PFCs in operations is an important value in your organization”, “concerned about reduce water consumption and intensify resource conservation is an important value in your organization”, “concerned about recycling of resources is an important value in your organization”, “concerned to have an ethical climate is an important value in your organization”, “the availability to collaborate and co-innovate openly is an important value in your organization”, “innovation and creativity of employees need to be ethical and is an important value in your organization”, and “ethical considerations and the ability to minimize and manage conflicts of interest is an important value in your organization”.

Control variables. We controlled for several variables that were not of direct interest for testing our hypotheses but could be theoretically related to the dependent variable and might provide plausible alternative explanation for our findings. Company size is one of most critical determinants of innovation potential Bharati and Chaudhury (2010). We coded company size as 0 for small size (less than 50 employees), 1 for medium size (more than 50 but less than 250 employees) and 2 for large size (more than 250 employees). Industry sector is the second control variable. We coded this variable thus: automotive as 0, chemicals as 1, construction as 2, electric engineering as 3, food industry as 4, healthcare industries as 5, mechanical engineering as 6, tourism as 7, toys as 8, information and communication technologies as 9 and others as 10. The capital type is coded as 0 for Romanian capital and 1 for multinational branch.

Table 1: Descriptive statistics

Variable	Mean	Standard deviation	Sig	Eta
Industry sector			.751	.527
Automotive	6	0.23		
Chemicals	6	1.239		
Education	3.4	1.14		
Others	5.57	0.976		
Construction	5	0.67		
Electric engineering	5	0.00		
Food industry	4.5	0.707		
Health care	4.5	2.121		
Mechanical	6	1.45		
Tourism	5	2.12		
IT&C	5.4	0.548		
Company size			.873	.104
Small	4.71	1.604		
Medium	4.83	1.169		
Large	5.13	1.17		
Capital type			.03	.411
Romanian	4.63	1.165		
Foreign	5.67	0.866		
Culture			.202	.346
Entrepreneurship	5	1.1		
Bureaucratic	3.86	1.215		
Focuses on customers	5.5	0.855		

Descriptive statistics of different initiatives of CSR are shown in Table 1. It indicates that the importance of company size received a mean values range from 4.71 to 5.13. The industry sector reflects that automotive, mechanical and chemicals have a quite meaningful into sample and a important potential to improve the innovation potential by CSR initiatives, espacially from environment activities. All variables used to identify how CSR initiatives can improve the innovation potential of company were measured within 16 statements. Eta tells how much one variable can explain the variance of innovation potential. We can notice that the industry sector and capital type are the main predictors of innovation potential. For example, industry sector explains 52.7 per cent of the variance of innovation potential.

Tables 2(I) and 2(II) report the correlations matrix for the study variables. We can see that there are correlations between the variables of interest. However, few problems with multicollinearity exist. Convergent validity correlations were in line with expectations: ethical innovation is most strongly correlated with the importance of innovation ( $r=0.47$ ), less so with poverty initiatives ( $r=0.45$ ), and weakest, yet still significantly, with poverty initiatives ( $r=0.22$ ).

Table 2 (I): Correlation matrix (N=28, two-tailed test)

Variables	1	2	3	4	5	6
The importance of innovation (1)						
Training and education initiatives (2)	0.03					
Developing career of employees (3)	0.32**	0.60**				
Poverty initiatives (4)	0.29	0.23	0.38*			
The reaction of company to social needs (5)	-0.09	0.52**	0.22	0.24		
Employee satisfaction (6)	0.34	0.43*	0.51**	0.07	0.36	
Employees' motivation (7)	0.42**	0.32	0.35**	0.45*	0.24	0.53**
Health and safety (8)	0.45*	0.25	0.48**	0.57**	0.18	0.33
Energy and climate (9)	0.21	0.39*	0.32	0.42*	0.58**	0.34
Reduce CO2 emissions and PCFs (10)	0.06	0.25	0.22	0.16	0.53*	0.35
Reduce water consumption and resource conservation (11)	-0.16	0.37*	0.19	0.29	0.48**	0.22
Recycling of resources (12)	0.22	0.47*	0.48*	0.34	0.41*	0.23
Ethical responsibility (13)	0.10	0.43*	0.43*	0.20	0.29	0.48**
Open innovation (14)	0.42*	0.58**	0.46**	0.21	0.34	0.38*
Ethical innovation (15)	0.47**	0.13	0.45**	0.22*	0.25	0.33
Ethical considerations (16)	-0.13	0.30	0.32	0.02	0.40*	0.05

**Table2(II) Correlation matrix (N=28, two-tailed test) / continuation**

Variables	8	9	10	11	12	13	14	15
Energy and climate (9)	0.2							
Reduce CO2 emissions and PCFs (10)	0.23	0.69**						
Reduce water consumption and resource conservation (11)	0.25	0.50**	0.55**					
Recycling of resources (12)	0.37*	0.54**	0.69**	0.55**				
Ethical responsibility (13)	0.13	0.53**	0.55**	0.48**	0.52**			
Open innovation (14)	0.28	0.33	0.20	0.11	0.35	0.35		
Ethical innovation (15)	0.54**	0.40*	0.25	0.19	0.34	0.12	0.43	
Ethical considerations (16)	0.10	0.14	0.29	0.10	0.26	0.14	0.33	0.22

\*\* Correlation is significant at the 0.01 level (two-tailed)

\* Correlation is significant at the 0.05 level (two-tailed)

Multiple linear regression analysis was used to assess the relationship between the dependent variables (innovation performance) and the independent variables. The results are shown in Table 3. We can see that reaction of companies to social needs has a positive relationship with innovation potential ( $\beta=.673$ ,  $p<.05$ ) and this supports Hypothesis 1. Furthermore, as was hypothesized, health and safety care has a positive relationship with innovation potential ( $\beta=.581$ ,  $p<.001$ ) and supports Hypothesis 3. Energy and climate have a positive relationship with innovation potential ( $\beta=.379$ ,  $p<.05$ ) and Hypothesis 2 is supported. Recycling of resources has a positive relationship with innovation potential ( $\beta=.446$ ,  $p<.05$ ) and Hypothesis 2 is supported. However, we observe a negative but not significant association between training and education initiatives and innovation potential ( $\beta= -.301$ ,  $p>.05$ ). A positive and significant relationship between ethical considerations and innovation performance ( $\beta=.948$ ,  $p<.001$ ) in line with our Hypothesis 4.

**Table 3: Ordinary Least Squares (OLS) regression results**

Variable	Beta	t	Sig
(Constant)	-	1.93	.08
Training and education initiatives	-.301	-1.73	.11
Developing career of employees	-.093	-.570	.58
Poverty initiatives	-.857	-3.08	.01
The reaction of company to social needs	.673	2.671	.02
Employee satisfaction	.466	2.208	.053
Employees' motivation	-.402	-2.17	.052
Health and safety care	.581	-3.16	.00
Energy and climate	.379	1.899	.047
Reduce CO2 emissions and PCFs	.244	1.242	.238
Reduce water consumption and resource conservation	.127	.597	.56
Recycling of resources	.446	-2.28	.04
Ethical responsibility	.567	3.063	.01
Open innovation	.707	3.955	.00
Ethical innovation	-.55	-2.35	.04
Ethical considerations	.948	3.98	.00
R2		0.780	
R		0.883	
Adjusted R2		0.506	
Standard error of the estimate		0.557	
F-value		2.843	
Sig (model)		0.04	
Dependent variable: the innovation potential			

The coefficient of multiple determination is  $R^2 = 0.78$ . Values of  $R^2$  between 0.5 and 0.8 may be reasonable. Adjusted  $R^2$  measures the percentage of the variation of dependent variable around its mean that is explained by the regression equation, adjusted for degrees of freedom. The highest possible adjusted  $R^2$  is 1. However, in our case it is 0.506, a value vary low. The standard error of estimate is the power the fit of the regression whether  $SEE > 0.5$ ,  $SEE$  for our model is 0.55 (OK!). Although  $R^2$  and



adjusted R<sup>2</sup> measure the overall degree of fit of an equation, they don't provide a formal hypothesis test of that overall fit. Such a test is provided by the F-test. The calculated F-value is 2.843 and F-statistic we can compute it using Statistical Table. If we choose a 5 percent level of significance, the numerator degrees of freedom equal 16, and the denominator degrees of freedom is 11, then F-statistic is 2.46. We can reject the null hypothesis because the calculated F-value (2.843) is greater than the critical F-value (2.46) and concluded that the equation does indeed have a significant overall fit.

## 5. Conclusions

In this paper we argue that CSR has a role to improve the innovation potential of companies. The findings (shown in Table 3) strengthen our argument that some CSR initiatives such as employee satisfaction, support for open innovation, health and safety care, the reaction of company to social needs and poverty initiatives all together may contribute to improve the innovation potential, and implicitly the organization performance. Our analysis also suggests that process innovation is often linked to the skills of employees. Collaboration with clients and/or suppliers allows a firm to gain considerable knowledge about new technologies, markets, and users' needs. The collaboration is important driver for innovation. Suppliers may play a more active role in stimulating innovation by trying to influence the small firm's innovation decision. In this case, CSR is important because the relationships between organization and its suppliers are based on trust and a very good reputation. CSR initiatives have essentially role to improve the reputation for companies.

In general, we empirically provide some evidence that explains that CSR initiatives may facilitate an organization's innovation, which, in turn, positively influences its business performance. The findings of this research indicate that CSR activity may be a driver for sustainable innovation. We find that many firms believe that social responsibility initiatives can have a positive effect on their innovation potential, but in practice few of these use corporate social responsibility as a strategic driver for innovation. Considerable differences can be observed between industries, and even between firms within an industry, in the importance of social responsibility and innovation.

The trends reveal that large firms are likely to be better at innovations that make use of economies of scale and scope, or require large teams of specialists, and large-scale application. Small firms are relatively strong in innovations where effects of scale are not important and where they can make use of their flexibility and proximity to market. Therefore, the impact of size on innovation is always greater for process innovations because large firms have more facilities for this type of innovation. Thereby small firms focus less on process innovations, but on products or services because small firms invest less effort in develop "absorptive capacity" for process innovations.

Some companies from transportation to manufacturing industries are concerned to develop technologies to achieve the best fuel efficiency performance and reduce CO<sub>2</sub> emissions and PFCs in their operations, for example, low CO<sub>2</sub> – emitting production technologies. The overall implication that can be drawn from the findings consist in indentify a harmony between people, society and environment, and sustainable development of society through innovation. In addition, ethical climate can influence social performance because innovation and creativity of employees and cultural dimensions are considered the underlying determinants of organizational performance.

In this paper we have argued that CSR initiatives allow organizations to develop human resource capabilities. Specifically, they asset that CSR is a labour market screening strategy that enables the firm to attract highly motivated, talented and productive employees. The blending of customer orientation and innovation orientation should lead to the generation of an operant resource capable of enhancing concretion opportunities. A dynamic capability of customer orientation may affect both volume and radical of innovation.

Our findings help organizations to improve their innovation potential through CSR initiatives. Although our analysis only explored associations between the corporate social responsibility and innovation, there is a need for further investigation on the causality, direction and quantification of each contribution of CSR initiatives. We encourage future research to investigate how the impact of CSR investment on innovation may change the organization performance.

## 6. References

- Baron, D. (2000) Private politics, corporate social responsibility and integrated strategy. *Journal of Economics and Management Strategy*, 10(2), p.7-45

- Bharati, P.; Chaudhury, A., (2010) Impact of knowledge acquisition on technology assimilation, *The Journal of Computer Systems*, 51(2), p.126-132
- Carroll, A. (1979) A three-dimensional conceptual model of corporate performance, *Academy of Management Review*, October, p. 497-505
- Kanter, R. (2011) How Greater Companies Think Differently, *Harvard Business Review*, November 2011, p.66-78
- Lawson, B.; Tyler, B.B.; Cousins, P.D. (2008) Antecedents and consequences of social capital on buyer performance improvement, *Journal of Operations Management*, 26(3), p.446-460
- McWilliams, A., and Siegel, D. (2011), Creating and Capturing Value: Strategic Corporate Social Responsibility, Resource-Based Theory, and Sustainable Competitive Advantage, *Journal of Management*, 37(5), p.1480-1495
- Porter, M.E.; Kramer, M.R. (2002) The competitive advantage of corporate philanthropy, *Harvard Business Review*, 80(12), p. 56-68
- Porter, M.E.; Kramer, M.R. (2006) Strategy and society: the link between competitive advantage and corporate social responsibility, *Harvard Business Review*, 84(12), p. 78-92
- Prahalad, C.K.; Hammond, A. (2002) Serving the world's poor, profitability, *Harvard Business Review*, September, 2002, p.48-57
- Richard, L. Daft, (2010) New era of management, ninth edition, South Western Cengage Learning, Canada
- Smith, N.C. (2008) Corporate social responsibility: whether or how, *California Management Review*, 45(4), p.52-76
- Sprinkle, G.; Maines, L. (2010) The benefits and costs of corporate social responsibility, *Business Horizons*, 53(4), p.445-456

# **RISK MANAGEMENT AND THE IMPLICATIONS TO BUSINESS SUCCESS**

**MILITARU Mădălina**  
(associate professor Phd.)

*Faculty of Marketing and International Business, Spiru Haret University, Bucharest, Romania*  
*madalina.militaru@yahoo.com*

**CHENIC (CREȚU) Alina Ștefania**  
(assistant professor Phd.)

*Faculty of Economy, Academy of Economic Studies, Bucharest, Romania*  
*chenicalina@yahoo.com*

**Abstract:** *In business, risk lurk at every turn, competitor innovations that threaten the viability of the products or services of a company, new players in the market place, adverse trends in commodity prices, currencies, interest rates or the economy. The paper aims to highlight the implications of risk management to business success. We analyzed different types of risks and pointed out that risk management is an important part of planning for businesses.*

**Key words:** risk management, business risks, operational risks

**JEL classification:** G32

## **1. Introduction**

Risk - one of the "key mechanisms" of economy evolution - represents a concept which in specialized theory was not discussed enough, people not managing to master the techniques of identification and avoidance during their activity.

The notion of risk is used in a series of sciences. The law studies the risk depending on its legality. Theory of the accidents explains this term for description of damages and disasters. There can be found studies over risks in psychology, philosophy, medicine and in each of these fields the study on risk is based on the object of the given science and, of course, on own methods and approaches. Such a variety of risk study explains itself by the diversity of this phenomenon.

Risk management is a process for identifying, assessing, and prioritizing risks of different kinds. Once the risks are identified, the risk manager will create a plan to minimize or eliminate the impact of negative events. A variety of strategies is available, depending on the type of risk and the type of business.

## **2. Risk management - an important part of planning for businesses**

Risk management involves internal and external environment analysis in which the organization operates, identifying risks, assessing their quality and quantity, development and implementation of the response plan, risks monitoring, identifying new potential hazardous situation and develop an enabling environment for ensuring communication about risk.

There are many different types of risk that risk management plans can mitigate. Common risks include things like: accidents in the workplace or fires, tornadoes, earthquakes and other natural disasters. It can also include legal risks like fraud, theft, and sexual harassment lawsuits. Risks can also relate to business practices, uncertainty in financial markets, failures in projects, credit risks, or the security and storage of data and records.

As regard to the economic risks, it's necessary to observe that the past years there appeared scientific works where considerations over planning, economic activity of companies, the ratio between demand and offer, approach the issue of risks.

The process of risk management is designed to reduce or eliminate the risk of certain kinds of events happening or having an impact on the business.

The risk is basically the threat that an event or an action to affect the capacity of a company to operate and/ or to follow the fulfillment of its strategic objectives. The risk generally appears not as the probability that something good will not happen, but from the possibility for something wrong will happen.

The definition of economic risk given in „Dicționarul de economie” (en. Dictionary of Economy) by Niță Dobrotă is the one of “*unsure and probable event or process which may cause a damage, a loss in*

*an economic activity, operation or action*". Unlike uncertainty, the economic risk is characterized by the possibility of describing a law (rule) of probability for the anticipated results, as also by the fact that the ones interested know this law.

The illustrated encyclopedic dictionary defines **risk** as "*the possibility to confront with a danger, a damage, a disturbance*" or "*possible danger, inconvenience*".

The English dictionaries mention the linguistically accepted standard definition: **risk** represents "*the possibility of occurrence of an event with adverse results for the subject*". The modern financial theory brings influences of this definition, considering that the sign of equivalence should be put between **probability** and **risk**: *in fact, probability constitutes the measurement unit for risk and a mean for quantifying it.*

The definition which illustrates the most comprehensive the risk belongs to the work "Băncile – Mică Enciclopedie" (en. Banks - small encyclopedia) (Kirițescu and Dobrescu, 1998), whereby the authors define **risk** in a business as "*future and probable event of which occurrence might produce some loss*".

Certain risks are easy to identify: for example the risk for a person to suffer an accident or the risk for a building to be affected by a fire. Although, risks can be more complex. Basically, every decision involves risks with positive or negative effect.

The idea behind using risk management practices is to protect businesses from being vulnerable. Many business risk management plans may focus on keeping the company viable and reducing financial risks. However, risk management is also designed to protect the employees, customers, and general public from negative events like fires or acts of terrorism that may affect them. Risk management practices are also about preserving the physical facilities, data, records, and physical assets a company owns or uses.

The process for identifying and managing the risk is fairly standard and consists of five basic steps, while a variety of different strategies can mitigate or eliminate risk. First step - threats or risks are identified. Second step - the vulnerability of key assets like information to the identified threats is assessed. Third step - the risk manager must determine the expected consequences of specific threats to assets. The last two steps in the process are to figure out ways to reduce risks and then prioritize the risk management procedures based on their importance.

The importance of risk for adopting the decision is certified by its place within the decision-making theory and management ideology and the constant interest to assess the management risk. Anyway, the empirical investigations over the decision-making process were not directly oriented towards the risk concept and risk assumption, promoted by managers; therefore, empirical investigations over the risk involved by adopting the decision were not oriented towards management behavior. The relationships between decision theoretical conceptions of risk and the conceptions of risk promoted by managers, remain relatively of mark.

John W. Pratt (1964), Kenneth J. Arrow (1965) and Stephen A. Ross (1981) considered that the individual decision factors are opposing to risk assumption. This means that when they are confronted with two alternatives, one which leads to a certain result, and the other one being risky, but leading to the same result, the first will be the one preferred. This way, the decision factors should have a compensation for the variation of possible results, such as increasing the benefit forecasted for the investment made although the investors are don't want to change the benefit. Is not certain if managers believe that the risk and benefit are positively correlated.

The attitudes to assume the risk are, usually, described as stable attributes of every individual, probably connected to the issue of personality or culture development. There were attempts to associate the preferential risk with the sizes of personality, so as to obtain motivation. The global differences between the probable individuals who assume risk and others who lack culture remain, in any event, indistinguishable. Risk assuming, as attribute of managers, was studied on subjects who waived their management tasks, becoming business man and who were compared with ordinary managers but, in the end, no difference between their preference for risk was determined.

It is possible that the preference for risk to be a stable part of the individual personality, but a number of variable vectors such as emotional state, feelings and the way problems are raised affect the perception of the risk and the attitude of assuming it (Cornescu, Marinescu, Curteanu and Toma, 2004). Particularly, Kahneman and Tversky (1979) observed that when a contact is established with a risk alternative, of which possible results are generally good (good financial results), the human subjects are opposing to the risk (Kahneman and Tversky, 1979, p. 263-291); but if they are dealing with a risk alternative of which possible results are generally modest, the human subjects have the tendency to

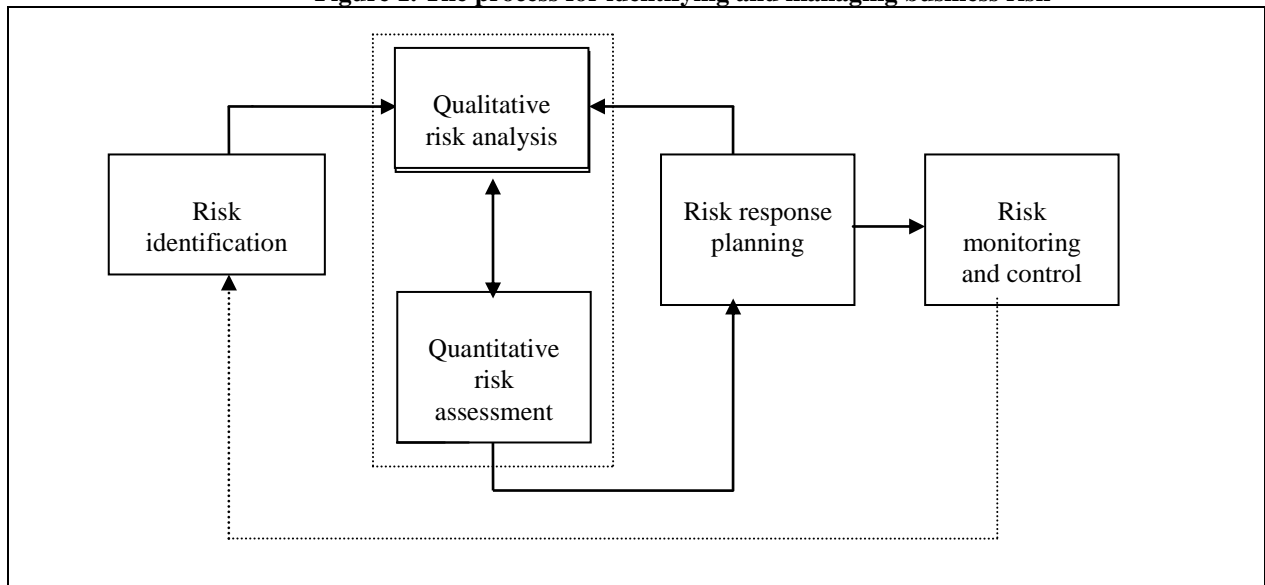
research (study) the risk (Maynard, Smith, 1978; Kahneman and Tversky, 1979; Lopes, 1986; March, 1988).

A variety of different risk factors can affect the ability of a business to operate effectively. Risk management is a process by which the most important risks can be identified, prioritized and mitigated or eliminated. The strategies used to deal with risks break down into some main categories: getting insurance; eliminating high-risk areas or reducing them. Also, an organization can accept the consequences of a risk and budget for it.

The process for identifying and managing business risk is fairly standard and consists of five basic steps: identify the company's risks assets; measure, quantify, and qualify possible damages; come up with strategies to limit the damage; implement the strategies and finally, the organization and its risk managers must continue to monitor the risk to see if the implemented strategy is effective.

This process is represented in the diagram below.

**Figure 1. The process for identifying and managing business risk**



Source: [www.jiscinfonet.ac.uk](http://www.jiscinfonet.ac.uk)

Risk management is a systematic process of identifying, analyzing and responding to project risk. Risk identification and analysis is important to the project management. The project manager has to start looking for risks relating to:

- the project plan - one of the key sources for identifying risk. For this it is necessary to understand the importance of Critical Path (the shortest time needed to complete the project) and the nature of task interdependencies;
- stakeholders - the project manager should identify who are the stakeholders for his company and undertake an analysis of their perceptions of the company and attitudes to it;
- resources - people, budget, time;
- organizational environment - risks associated with organizational environment may be general or specific. General risks are related to the organizational culture and specific risks are associated with the institutional mood at that point in time;
- external environment - a change in government, a change in the funding model, a change in the market for particular subjects are risks from external environment that may affect a company, economic recession.

### 3. Types of risks

**Business risks** can take a wide range of forms, which means that business risk management plans must cover an equally wide range of policies. On a very basic level, ensuring employee and equipment safety by preventing accidents is important. Disaster preparedness is also an important component of business risk management and should include things like fire, flood, and critical incident plans. Another important part of a risk management plan is making sure that data are backed up regularly and are secure so they cannot be accessed by unauthorized personnel.

**Risks to the financial resources** are often treated differently from other sources of risk when coming up with a risk management plan. Financial risk management plans often include guidelines for how to make financial decisions. They also codify how much risk and what kinds of risks are acceptable for the company to take. Plans to handle strategic risks are similar in that they would lay out how decisions about how to make advertising, research, and development, and other business practices.

**Operational risks** are risks that come from the way the business operates both internally and externally. External risks are things like changes in political climate, regulations, suppliers, and contracts. Internal risks include the possibility of the failure of internal systems or processes. Loss of physical assets to disasters like fire or flood is an example, as is loss due to the computer system crashing. A business risk management plan would also need to address human error, as well as fraud, theft, and other illegal activities.

Business risk management planning includes the consideration of a wide variety of risk factors, including those to people, property, financial assets, strategy, and operations. It's an important precaution to have a plan in place for as many of these factors as apply to a business.

A very specific type of risk management relates to financial decisions taken in a business. In this context, risk management is not about eliminating risk but rather about controlling the way to take risks. It's different from some other types of risk management.

Risk management is a process for mitigating or eliminating risk in a variety of different areas that may impact the operation of a business. Different strategies are used to manage risk depending on the business and the type of risk. In the case of financial risk management, this means making sure the financial risks that are taken are sound risks. This usually means codifying how the company makes these decisions as well as what constitutes a good financial risk.

When companies make financial decisions, they always assume some degree of risk, especially when they're making decisions about investments. Financial risk management is a set of practices that allow a company to optimize the way it takes financial risk. A financial risk management plan may include things like how the company monitors risky activities and applies the risk process. The company's board or senior management decides the plan to guide how financial decisions are made.

As with other types of risk management, in financial risk management there are a variety of different types of risks the risk managers must take into account and evaluate. Market risk, the exposure to financial loss because of the uncertain future value of stocks, is a key component of financial risk. This type of risk is managed by avoiding day-to-day losses on the stock market. Risk management procedures might impose a level of acceptable risk in investing to mitigate market risk.

**Credit risk** is a type of risk that comes into play when a company is making loans, issuing credit cards, insuring, or investing in the debt of other companies. In these cases, the risk they're assuming is that the other party will default, in which case they'll lose the investment. A risk management plan for credit risks would apply a procedure for determining how much of a risk a particular investment is. It would also detail how much risk is too much and how much is acceptable.

An operation risk is slightly different from market risk and credit risk because it concerns the internal operation of a company, rather than an exterior source of risk. Operational risk is the risk of a loss because of the failure of internal systems or processes or the errors of people working for a company. These may include system errors like computer failures, or losses to physical assets like fire, floods, or earthquakes. It may also include employee-caused problems like errors, fraud, theft, or other criminal activities.

Financial risk management involves protecting a company against financial loss due to a variety of factors. While this type of risk management only provides guidelines by which financial decisions should be made, it is still an important safeguard against loss.

Risk management is the natural result and the purpose of the other two essential stages: their identification and ranking, meaning prioritization of their approach within the company. Ranking is made also depending on the frequency, and depending on the severity of the impact that the business may have. It follows the quantification of the potential impact of the respective risks over the business.

When the company has a clear image over the risks to which it is exposed, has their ranking, decides over the risks to manage. The risks with the largest impact, with the largest frequency and possibility of occurrence, are the ones to be approached. The management refers exactly to the measures which the company takes regarding the risks they identified and ranked. The risk reduction measures would be the first step. It's about the risks which the company decides to keep and assume, because its financial capacity allows it to withstand certain risks.

The following step would be to transfer the risks which cannot be controlled by a third party, which in fact is the insurance company. It's about the risks which the company decides to remove, the ones that cannot be assumed, because the impact would be major over the business. Among these, the company transfers them to an insurance company, against a premium which represents the price of taking over the risks by the insurer. The advantage of concluding insurance is the fact that the company protects its business, protects its balance, and the impact may not destabilize the company.

The risk manager is an administrator of the company's risks. Because only one part of the risks can be insured, the risk manager intervenes, who, having a very clear image over the risks to which the company is exposed, should reach the optimum balance between the risks kept by the company and the ones for which the insurance is made.

The risk manager should interact every day, both with his own people and business, and with the eventual consultant of risk management, with the insurance consultant, with the insurance company, with the economic environment etc. There are companies who want to spend less and to keep one part of the risks and there are companies who want to be very well protected against more and more risks and are capable to invest more in order to reach this objective. The risk manager should establish together with the top management the risk policy and to transpose it in practice. He is an executive person.

His training depends on the activity object of the company. It's good to be a specialist in that field and not only on one branch of the activity. Generally, they should also have experience in that field, because there should be very well known all the details of the business, the production process should be known, regarding constructions, equipments, machines, they should know how are built, where they are from, bought, what possibility exists to be replaced, fixed. It's a Senior position. They report to the general manager, because they should not be subordinated to the commercial or financial interests. For example: many times, the companies are interested to sell more and therefore, sometimes, waive the quality. If the products are not made with care, the company is exposed to risk.

The risk manager should have the overall vision of the activity, to follow the day to day evolution, because the risks can change from one day to the other, from one hour to the other, and from minute to minute. The risk manager should have knowledge of human resources, because the loss of key personnel is a high risk, it may influence the business very much.

Although the business men are aware of the fact that such risks are threatening in large extent the survival and future development of the company, in a large part of the cases they don't trust in the actions performed to manage those risks. The managers should find solutions in order to keep risks under control and to ensure future development of the companies.

#### **4. Conclusions**

Awareness of risk has increased as we currently live in less stable economic and political environment.

We can say that the risk and uncertainty play a very important place in the economic activity, including contradiction between planned and real, meaning the source of developing the activity of management. The managerial risk has an objective base because the uncertainty which comes from outside the company. The external environment includes objective, social and political economic conditions, within which the company develops its activity, being required to adapt to their dynamic. The uncertainty of the situation is predetermined by the dependency of the multitude of variables, agents and individuals, of which conduct cannot be always provided with an acceptable exactness. It equally affects the lack of clarity in defining the purposes, criteria and parameters of their estimation (the changes as regard to public needs and demand of consumption, occurrence of technical and engineering innovations, changing the market conjuncture, natural unpredictable phenomena).

The organization is always connected to unforeseeable and uncertainty of the economic conjuncture which comes from the inconstancy of the demand/ request for goods, money, productive factors, from the variety of the criteria of preference of investment of the means, from the mediocrity of knowledge in the fields of business and commerce and from several other circumstances.

The economic conduct of the manager under the conditions of a market economy is based on the chosen activity, on its risk, individually achievable, within its possibilities, coming from legislative acts. Every participant to the market relations is initially deprived from the guarantee of success: market share, stability of the purchase power, accessibility to industrial resources, constancy of the legal norms etc.

Senior management must demonstrate leadership in championing and funding this initiative because organizations indicate that they expect having trouble finding the time, budget and people necessary to implement or maintain a strong risk management program.

Companies protect their ability to compete by implementing an effective risk management program. Nothing is more fundamental to business success.

## 5. References

- Cornescu, V., Marinescu, P., Curteanu, D., Toma, S. (2004) *Management-from theory to practice*, Editura Universității din București
- Coșea, M., Nastovici, L. (1999) *Risks assessment. Methods and Techniques of Analysis at micro and Macro Level*, Lux Libris, Brasov,
- Ephraim Clark, E., Marois, B. (1996) *Managing Risk in International Business*, Intl. Thomson Business Press
- Ferrari, J.-B. (2002) *Economie du risque, application a la finance et a l'assurance*, Edition Breal
- Horobeț, A. (2005) *Risk Management*, CH Beck, Bucharest
- Kahneman, D., Tversky, A. (1979) Prospect Theory – An Analysis of Decision Under Risk in *Econometrica* 47, p. 263-291
- Kirițescu, C.C., Dobrescu, E. M. (1998) *Banks - small encyclopedia*, Expert, Bucharest
- \*\*\* (1999) *Illustrated encyclopedic dictionary*, Cartier Publishing House, Bucharest
- Rusu, C., Visoiu I. (2010) *Implementation of Risk Management at Organizational Level*, Economica, Bucharest



# THE EFFECTIVENESS OF PRODUCTION FACTORS USAGE DURING THE ECONOMIC CRISIS. AN APPROACH IN THE SUGAR INDUSTRY

**CUREA Ștefania-Cristina**

*assistant professor, Ph.D, The Faculty of Accounting and Management Information, The Department of Accounting, Audit, Analysis and Management Information Systems, The Bucharest University of Economic Studies, Romania, [sneagu@ase.ro](mailto:sneagu@ase.ro)*

**CREȚU Raluca Florentina**

*assistant professor, Ph.D, The Faculty of Accounting and Management Information, The Department of Accounting, Audit, Analysis and Management Information Systems, The Bucharest University of Economic Studies, Romania, [rcretu@ase.ro](mailto:rcretu@ase.ro)*

**CIORA Costin**

*teaching assistant, Ph.D, The Faculty of Accounting and Management Information, The Department of Accounting, Audit, Analysis and Management Information Systems, The Bucharest University of Economic Studies, Romania, [costin.ciora@cig.ase.ro](mailto:costin.ciora@cig.ase.ro)*

**Abstract:** *The purpose of this paper is to analyze the land fund, the human factor and the industrial means used by companies in the sugar industry. Therefore the research will establish the following objectives: analyzing the usage of production factors in the sugar industry taking as an example the sugar beet processing factories in Romania; using the production function in the analysis of the effectiveness of the production factors usage; suggesting an analysis aggregate model for the effectiveness of production factors usage in order to allow the analysis of the production change in accordance with the analyzed factors.*

**Keywords:** *production factors, production function, regression equation*

**JEL classification:** D2, E10, Q10

## 1. Introduction

Factors of production refer to inputs in the production system and in economic activities in general, including necessary and sufficient conditions for the development of a process used to produce goods. (Dobrotă, N. , 1997, p. 209)

During the whole of human society evolution, the concept of factors of production has passed through several stages in its developing, understanding, adapting and implementation.

Much later, in the second half of the XVIIIth century and the beginning of the XIXth, a new and vigorous factor of production appeared and imposed itself – capital.

In the modern era, the three classic factors (work, nature and capital) were accompanied by others due to the process of an enhancement and diversification processes of the resources used in the economic activity, and are called neo-factors of production.

William Petty, in his ‘Treatise of Taxes and Contributions’ speaks for the very first time about production factors. According to the author, the factors of wealth are labour and nature: ‘labour is the father of wealth and nature is its mother’ (Petty W, 1662, p.4)

In his ‘Wealth of Nations’, Adam Smith is the first to create a unitary and coherent concept combining the three factors of production – labour, land and capital, asserting that labour is ‘the true source of wealth ... and land and capital have a special productivity’ (Smith A., 1776, p.74).

## 2 Analysis of the effectiveness of production factors usage by companies in the sugar industry

The capacity of the enterprise to meet the requirements and reactions of the market depends on the insurance of material, human and financial resources while constantly agreeing with the aspects regarding their maximum effectiveness usage.

The main aspects of the analysis of the effectiveness of the production factors usage are:

- The analysis of the effectiveness of the land fund usage;
- The analysis of the effectiveness of the human factors usage;
- The analysis of the effectiveness of the industrial means usage.

The research is based upon a case study that we deemed representative for the theme of our paper: the sugar beet processing factories in Romania, namely S.C. AGRANA Romania S.A., S.C. Zahărul Oradea, S.C. Zahărul S.A. Luduș and S.C. Fabrica de Zahăr Bod S.A., as the only factories processing sugar beet in Romania. At present, there are eight sugar beet processing factories in Romania out of 33 factories that existed before 1989. The other 4 factories that still work today process only raw imported sugar and are not included in the research as it would have restricted it since a significant production factor, namely the land fund, could not have been included in this study.

## 2.1. Land Fund – analysis of use efficiency

The analysis of use of the land fund is made on the basis of natural expression indicators as well as value expression indicators.

Thus, for the analysis of land fund use in natural expression we shall use the average production per hectare (table 1), and for the analysis of land fund use in value expression we shall use agricultural area performance, calculated on the basis of manufactured production (table 2).

*Table 1: Effectiveness of the land fund use based on the average sugar beet production per hectare in sugar beet processing factories in Romania*

	Reaped area (ha)			Received sugar beet production (t)			Average sugar beet production per hectare (t/ha)		
	1			2			3=2/1		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
Agrana Romania	4,202	10,003	6,744	78,966	294,548	161,764	18.79	29.45	23.99
Zahărul Oradea	5,028	7,549	5,461	201,980	215,797	167,944	40.17	28.59	30.75
Zahărul Luduș	5,266	7,476	5,122	184,818	203,800	173,786	35.10	27.26	33.93
Fabrica de zahăr Bod	3,254	5,130	4,956	81,102	180,377	157,707	24.92	35.16	31.82
Romania	25,200	39,800	28,700	729,700	1,152,200	748,800	28.96	28.95	26.09
EU	2,245,100	1,867,900	1,807,500	132,292,400	135,511,700	110,409,600	58.92	72.55	61.08

Source: Calculations made on the basis of data published by Patronatul Zahărului and the Statistics Office of the European Union (Eurostat)

The calculations in Table 1 illustrate that the greatest average sugar beet production per hectare was recorded by the sugar factory in Oradea in 2008 while the lowest production was recorded by Agrana in 2008. For the analysis to be relevant, the average productions of the four factories must be compared to the average recorded at national and European level. Thus, by comparing the average sugar beet production recorded by Agrana Romania to the national average production one notices that in 2008 and 2010 the average production recorded by Agrana is situated below the national production. Only in 2009 Agrana records an average production situated above the national production level. The sugar factories in Oradea, Luduș and Bod record sugar beet production/ha below the national production level in only one year, 2009, for Oradea and Ludus companies, and in 2008 for the Bod factory respectively.

By comparing the average production per hectare in our country to the average production per hectare in the European Union one notices a difference of about 29 tons per hectare (51%) in 2008, 44 tons per hectare (60%) in 2009 and 35 tons per hectare (57%) in 2010, a difference that needs to be recovered in order for our country to be competitive on the EU sugar market and to receive subsidies for reaping this plant in the future.

The second indicator that can estimate the effectiveness of the land fund use is the agricultural area performance expressed through manufactured production or net income.

We shall calculate the agricultural area performance based on manufactured production in the three analysed years.

*Table 2: Effectiveness of the land fund use based on the agricultural area performance expressed through manufactured production within sugar beet processing factories in Romania*

Company	Reaped area (ha)			Manufactured production (lei) (sugar production of sugar beet)			Agricultural area performance (lei/ha)		
	1			2			3=2/1		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
AGRANA Romania	4,202	10,003	6,744	16,384,484	77,933,695	28,961,243	3,899.21	7,791.03	4,294.37
Zahărul Oradea	5,028	7,549	5,461	39,745,155	53,840,580	48,783,237	7,904.76	7,132.15	8,933.02
Zahărul Luduș	5,266	7,476	5,122	30,829,333	39,105,475	40,903,613	5854.41	5230.80	7985.87
Bod Sugar Factory	3,254	5,130	4,956	11,226,327	42,794,979	31,836,127	3450.01	8342.10	6423.75

Source: Calculations based on data published by Patronatul Zahărului

By analysing the data in table 2 one notices a trend of the agricultural area performance calculated on the manufactured production similar to the average production per hectare. Apart from the profitability of the areas where sugar beet is cultivated, its processing performance also contributed to these results.

## 2.2. Analysis of the effectiveness of the human factors usage

A rational use of the labour force is both a mandatory condition for a full capitalization of all production factors and an outcome of this process. The human factor input in the economic development is a complex process within which occupying and using the labour force as well as the increase of labour productivity are equally essential. Thus, the main generalizing indicators of the effectiveness of the staff usage are the annual average productivity and the profit/employee. In table 3 you will see the dynamics of the annual average productivity, of the average profit/employee and of labour productivity within the sugar beet processing factories in Romania.

*Table 3: The effectiveness of the human factors usage based on the annual average productivity and of the profit/employee in the sugar beet processing factories in Romania*

No	Indicators	UM	2008	2009	2010
<b>Agrana Romania</b>					
1	Turnover	lei	400,731,821	609,277,389	441,474,213
2	Gross outcome from net turnover	lei	42,919,909	93,764,142	98,565,862
3	Staff expenditures	lei	17,558,439	19,442,239	21,149,389
4	Employee average number	people	704	722	679
5	Labour productivity (1:4)	lei/employee	569,221	843,875	650,183
6	Profit/employee (2:4)	lei/employee	60,966	129,867	145,163
7	Gross average salary/employee (3:4)	lei/employee	24,941	26,928	31,148
8	Salary index	%		107.97%	115.67%
9	Productivity index	%		148.25%	77.05%
10	Correlation index (8:9)	coefficient		0.73	1.50
<b>Zahărul Oradea</b>					
11	Turnover	lei	103,928,25	228,152,713	152,868,642
12	Gross outcome from net turnover	lei	39,541,045	28,679,496	14,306,292
13	Staff expenditures	lei	8,560,613	9,645,749	8,837,972
14	Employee average number	people	304	301	233
15	Labour productivity (11:14)	lei/employee	341,869	757,982	656,089
16	Profit/employee	lei/employee	130,069	95,281	61,400

17	Gross average salary/employee (13:14)	lei/employee	28,160	32,046	37,931
18	Salary index	%		113.80%	118.37%
19	Productivity index	%		221.72%	86.56%
20	Correlation index (18:9)	coefficient		0.51	1.37
<b>Zahărul Luduș</b>					
21	Turnover	lei	45,897,296	45,900,425	42,358,669
22	Gross outcome from net turnover	lei	2,466,093	4,419,566	8,406,266
23	Staff expenditures	lei	5,785,404	6,515,468	6,193,525
24	Employee average number	people	317	304	283
25	Labour productivity (21:24)	lei/employee	144,786	150,988	149,677
26	Profit/employee (12:14)	lei/employee	7,779	14,538	29,704
27	Gross average salary/employee (23:24)	lei/employee	18,250	21,432	21,885
28	Salary index	%		117.44%	102.11%
29	Productivity index	%		104.28%	99.13%
30	Correlation index (28:29)	coefficient		1.13	1.03
<b>Fabrica de zahăr Bod</b>					
31	Turnover	lei	20,601,887	39,994,469	49,659,362
32	Gross outcome from net turnover	lei	3,219,518	-2865571	8006509
33	Staff expenditures	lei	5,785,404	2,892,679	4,530,297
34	Employee average number	people	220	192	256
35	Labour productivity (31:34)	lei/employee	93,645	208,305	193,982
36	Profit (loss)/employee (32:34)	lei/employee	14,634	-14,925	31,275
37	Gross average salary/employee (33:34)	lei/employee	26,297	15,066	17,696
38	Salary index	%		57.29%	117.46%
39	Productivity index	%		222.44%	93.12%
40	Correlation index (38:39)	coefficient		0.26	1.26

Source: own calculations based on the data present in the financial statements of the 4 companies

The calculations (table 3) show that the dynamics of the annual average labour productivity for all the four sugar beet factories recorded an upward trend in 2009 over 2008 and a downward trend in 2010 in comparison with 2009.

By analyzing the rapport between the elements that define the calculation of the annual average labour productivity it can be noticed that the increase of the growing pace of labour productivity in 2009 over 2008 was influenced by the turnover increase along with the decrease of the employee average number of the factories in Oradea, Luduș and Bod or by the growing turnover that surpassed the growth of the employee annual average number that was recorded by Agrana.

In the second period analyzed here (2010 compared to 2009), the decrease of the annual average labour productivity which surpassed the decrease of the annual average employee number for Agrana Oradea and Luduș or the effect of the turnover increase inferior to the increase of the annual average employee number for the factory in Bod.

The turnover increase in 2009 over the previous year was influenced by the growth of the merchandise production as a result of the increase of the sugar beet cultivated area and of the average yield per hectare for Agrana and Bod and as a result of the increase of the cultivated area alone, while the average yield per hectare decreased, in the case of the Oradea and Luduș factories.

The increase of labour productivity has multiple influences and one may assert that it is the main reason for the growth of the merchandise production, having economic consequences on all synthetic economic and financial indicators of the factories' activity. At the same time, the increase of labour productivity is the decisive factor in obtaining the optimum correlations between the basic indicators of economic activities. One of the most significant effects is the correlation between the increase of average labour productivity and average salary. The correlation between the dynamics of labour productivity and the average salary represents a model for emphasizing labour efficiency.

The main requirement regarding this correlation is that, irrespective of its representation, the dynamics of labour productivity should surpass that of the average salary.

According to the calculations made in table 3, one can notice that in the first analyzed period (2009 compared to 2008), for the Agrana Oradea and Bod factories, the growing pace of labour productivity surpasses that of the average salary and that as a result the correlation index is sub-unitary,

which is considered positive. On the contrary, for the Luduș factory, where a more accentuated increase of the average salary over that of the annual average labour productivity was recorded, thus generating an over-unitary correlation index, the situation is unfavourable. The size of the generated index shows that with every increase percentage of labour productivity, the average salary increased by 13%.

The second analyzed period reflects a negative situation for all four factories, the increase index for the annual average salary surpassing the increase index for labour productivity, which requires measures to increase the annual average labour productivity, necessary for the next period.

### 2.3. Analysis of the effectiveness of industrial means usage

The effectiveness and viability of an enterprise on a market based on competition are also ensured by the company's access to technical and material assets that are in conformity with the new requirements on the market economy.

This requires industrial means that are represented by fixed and current assets.

The effectiveness of fixed assets is ensured by the following indicators: turnover per 1000 lei of fixed assets, added value per 1000 lei of fixed assets.

By analyzing the effectiveness of fixed assets use within the sugar beet processing factories in Romania (Table 4), one notices an increase of the dynamics of their yield in 2009 as compared to 2008 and a decrease in 2010 as compared to 2009.

Thus, if in 2008, for each 1000 lei of fixed assets a turnover of 9,604 lei was obtained by Agrana Romania, 3,961 lei by the sugar factory in 2,004 lei by Ludus, and 1057 lei by Bod, in 2009 there was an increase of 49% for Agrana Romania, of 117% for Zahărul Oradea, of 2% for and of 72% for the Bod sugar factory.

From the perspective of the fixed assets yield, 2010 was a negative year. Thus, in that year, the value of the turnover per 1000 lei of fixed assets decreased as compared to 2009, by 35 % for Agrana Romania, by 32% for Zahărul Oradea, by 17% for Zahărul Luduș and by 4% for the Bod sugar factory.

The other indicator that shows the yield generated by the fixed assets' effectiveness, namely the added value per 1000 lei of fixed assets, followed approximately the same trend as the turnover per 1000 lei of fixed assets (Table 4).

*Table 4: Effectiveness of industrial means usage based on turnover per 1000 lei of fixed assets and the added value per 1000 lei per fixed assets within the beet sugar processing factories in Romania*

	Indicators	UM	2008	2009	2010	% 09/08	% 10/09
<b>Agrana Romania</b>							
1	Turnover	lei	400,731,821	609,277,389	441,474,213	152%	72%
2	Added value	lei	31,461,986	61,974,232	78,447,631	197%	127%
3	Fixed assets	lei	41,726,141	42,632,372	47,820,414	102%	112%
4	Turnover per 1000 lei of fixed assets	lei per 1000 lei	9,604	14,291	9,232	149%	65%
5	Added value per 1000 lei of fixed assets	lei per 1000 lei	754	1,454	1,640	193%	113%
<b>Zahărul Oradea</b>							
	Indicators	UM	2008	2009	2010	% 09/08	% 10/09
6	Turnover	lei	103,928,252	228,152,713	152,868,642	220%	67%
7	Added value	lei	-5,108,968	24,286,289	24,258,323	-475%	100%
8	Fixed assets	lei	26,234,711	26,584,886	26,365,674	101%	99%
9	Turnover per 1000 lei of fixed assets	lei per 1000 lei	3,961	8,582	5,798	217%	68%
10	Added value per 1000 lei of fixed assets	lei per 1000 lei	-195	914	920	-469%	101%

Zahărul Luduș							
	Indicators	UM	2008	2009	2010	% 09/08	% 10/09
11	Turnover	lei	45,897,296	45,900,426	42,358,669	100%	92%
12	Added value	lei	9,069,155	12,102,247	16,094,752	133%	133%
13	Fixed assets	lei	22,902,648	22,503,262	25,026,154	98%	111%
14	Turnover per 1000 lei of fixed assets	lei per 1000 lei	2,004	2,040	1,693	102%	83%
15	Added value per 1000 lei of fixed assets	lei per 1000 lei	396	538	643	136%	120%
Bod Sugar Factory							
	Indicators	UM	2008	2009	2010	% 09/08	% 10/09
16	Turnover	lei	20,601,887	39,994,469	49,659,362	194%	124%
17	Added value	lei	2,497,452	7,115,371	5,038,112	285%	71%
18	Fixed assets	lei	19,496,096	22,044,872	28,427,415	113%	129%
19	Turnover per 1000 lei of fixed assets	lei per 1000 lei	1,057	1,814	1,747	172%	96%
20	Added value per 1000 lei of fixed assets	lei per 1000 lei	128	323	177	252%	55%

Source: own calculations based on the data present in the financial statements of the 4 companies

### 3. Proposal for an aggregate model for the analysis of the production factors usage

Applying the models for methods of analysis in using the production factors presented in the specialized literature there is usually used a single factor of production, making abstraction of the other two factors. Since all production factors are interrelated that means the production cannot be obtained through the action of a single factor but by the complex action of all factors of production. . Thus, to objectively determine the effectiveness of the use of all factors of production, an aggregate indicator analysis is necessary. To this end proposes I suggest developing a model that combines the influence of all factors of production, based on the method of regressive- interrelation analysis. Within regressive- interrelation analysis it is analyzed how the dependent variable evolves according to the modification of one or more causal variables.

In this case the link factorial equation will yield:  $y_{x1, x2, \dots, xn} = a_0 + a_1 x_1 + a_2 x_2 + \dots + a_n x_n (1)$ ,

Where:

$a_0$  – the free coefficient of the equation;

$a_1, a_2, \dots, a_n$  – the coefficients of regression, expressing the mean change in the characteristic feature of endogenous  $y$  caused by exogenous changes  $X_i$  by one, provided that the influence of other factors in the mathematical model is considered and set at the average level;

$x_1, x_2, \dots, x_n$  - independent variables affecting the outcome

The mentioned factorial link equation is also called "production function" as highlights the functional dependence of the factors of production size, which is input into the system and result in the production process (production, income, etc.) that is considered output of the system (Petre D.A, 1996, p. 25-26).

To determine the priority factors the elasticity coefficients are calculated by the following

$$\text{formula: } \varepsilon_1 = a_1 \frac{x_1}{y}; \quad \varepsilon_2 = a_2 \frac{x_2}{y}; \quad \text{etc.} \quad (2)$$

They show the percentage each product characteristic will change if the characteristic factor will change by 1%.

The partial coefficients of determinants determine individual significance of each factor included in the model, as they are calculated taken the formula:  $d_i^2 = r_{yxi} \beta_i (3)$

Where:

$r_{yxi}$  – the even correlation coefficient between  $y$  and  $x_i$  .

$$r_{yxi} = \frac{n \sum x_i y - (\sum x_i)(\sum y)}{\sqrt{n \sum x_i^2 - (\sum x_i)^2} \times \sqrt{n \sum y^2 - (\sum y)^2}} \quad (4), \text{ where:}$$

n = number of subjects in the sample;

$\sum x_i^2$  și  $\sum y^2$  are obtained by raising the square and then summing the results

$(\sum x_i)^2$  și  $(\sum y)^2$  is obtained by summing all parties x-and y-parties and then raises the result to the square;

$\sum x_i y$  is the total sum of the two variables

The multiple regression and correlation analysis enable us to highlight the factors that appear to change the enormous possibilities of amending the feature outcome. The multifactorial model in order to determine the priority of factors may make their arrangement according to the coefficients determined above, and thereafter determine the average rank factor influence the outcome.

The model was applied to three of the four sugar factories covered by the case study, Oradea Sugar, Sugar Sugar Factory Ludus and Bod, for the period 2004-2010.

If AGRANA Romania factory, could not apply the model because in 2004 the company hadn't processed sugar beet.

In developing multifactorial model to determine the influence of factors to change the indicator result was considered next endogenous characteristic.

y - the production of sugar made from sugar beet (tonnes).

In the mathematical model were included factors that have a significant influence on production manufactured goods, namely:

x1-yield agricultural land (tons beet / ha);

x2 - labor productivity (in tons sugar beet / employee);

x3 – the degree of utilization of production capacity (%).

Processing the information using Excel, for the factory in Oradea, it allowed to be obtained the following regression equation:

$$y = -3.020,68 + 168,90x_1 + 0,95x_2 + 232,48x_3 \quad (5)$$

The regression coefficients in equation obtained shows an increase in the amount of sugar obtained from sugar beet:

- to 168.90 tones, where the yield of agricultural land increased by one tone of sugar beet per hectare;

- with 0.95 tones, where average labor productivity is increased by one tone of sugar beet per employee;

- to 232.48 tones, where utilization of production capacity increases by one unit.

To determine the weight of each factor to the formation of manufactured goods production will calculate the elasticity coefficients using the initial data in table 5.

**Table 5: Initial data for the determination of elasticity coefficients and standard deviation**

	INITIAL DATA				CALCULATION DATA			
	y	x <sub>1</sub>	x <sub>2</sub>	x <sub>3</sub>	y <sup>2</sup>	x <sub>1</sub> <sup>2</sup>	x <sub>2</sub> <sup>2</sup>	x <sub>3</sub> <sup>2</sup>
1	12.080	8,29	51,56	6,39	402.965.476	570,23	675.232,55	6.566,06
2	20.074	23,87	821,73	81,03	245.548.900	729,39	271.375,10	3.676,15
3	15.670	27,01	520,94	60,63	110.019.121	583,88	186.028,90	1.370,54
4	10.489	24,16	431,31	37,02	302.064.400	2.296,22	343.129,33	2.398,75
5	17.380	47,92	585,77	48,98	557.809.924	1.613,71	993.235,16	7.082,62
6	23.618	40,17	996,61	84,16	733.488.889	817,17	1.156.485,9	9.709,63
7	27.083	28,58	1.075,4	98,54	488.852.100	945,77	1.168.960,1	6.939,82
S	22.110	30,75	1.081,18	83,31	2.840.748.810	7.556,38	4.794.446,9	37.743,6
M	136.424	222,47	5.512,94	493,66	405.821.259	1.079,48	684.920,99	5.391,94

Source: own calculations

Such elasticity coefficients calculated on relationship (2) will be:

- For  $x_1$ :  $E_1 = 168,90 \times \frac{31,7828}{19,489} = 0,2754$
- For  $x_2$ :  $E_2 = 0,95 \times \frac{787,5631}{19,489} = 0,0383$
- For  $x_3$ :  $E_3 = 232,48 \times \frac{70,5231}{19,489} = 0,8412$

The elasticity coefficients calculated values allow us to state that:

- increase efficiency by 1% of agricultural land will help increase sugar production by 0.2754%;
- the average annual labor productivity increase of 1% will lead to increase sugar production with 0.0383%
- increase the use of production capacity by 1% will result in increased production of sugar by 0.8412%.

Applying the formula (4) the following results are obtained for  $r_{yxi}$ :

$$r_{yx1} = 0,1878; r_{yx2} = 0,9353; r_{yx3} = 0,9498,$$

and for the partial coefficients of determinants (proportion 3):

$$d_1^2 = 0,1878 \times 0,2758 = 0,0518;$$

$$d_2^2 = 0,9353 \times 0,0473 = 0,0442;$$

$$d_3^2 = 0,9498 \times 0,9327 = 0,8859;$$

The partial coefficients of determinants leads to weight each factor in the formation of manufactured production.

Thus, the yield of agricultural land, average annual labor productivity and utilization of production capacity causes physical change in sugar production by 5,18%, 4,42% and 88,59% (table 6).

**Table 6: The participation rate on sugar production factors**

INDICATORS	%
The sugar production from sugar beet	100,00
Yield of agricultural land	5,18
Annual average labor productivity	4,42
Production capacity used degree	88,59
Others	1,80

Source: Own calculations

The results obtained (Table 6) show that the largest share of production has achieved a factor  $x_3$ , utilization of production capacity, 88.59% respectively  $x_1$ , yield of agricultural land has led to 5.18% of production.

The annual average productivity is the factor that contributed the smallest proportion of production from, holding a share of 4.42%.

For factory in Ludus was obtained following regression equation:

$$y = 8.369,54 + 31,80x_1 + 17,91x_2 + 49,23x_3$$

The regression coefficients in the equation obtained shows an increase in the amount of sugar obtained from sugar beet:

- by 31.80 tons if the yield of agricultural land increases by a tone of sugar beet per hectare;
- by 17.91 tons when the average labor productivity is increased by one tone of sugar beet per employee;
- by 49.23 tons when the utilization of production capacity increases by one unit.

By applying the same methodology as in sugar factory in Luduş, the coefficients of elasticity are:

- For  $x_1$ :  $E_1 = 0,0464$
- For  $x_2$ :  $E_2 = 0,4210$
- For  $x_3$ :  $E_3 = 0,1506$

The elasticity coefficients calculated values allow us to state that:

- Increase efficiency by 1% of agricultural land will help increase sugar production by 0.0464%;
- Average annual labor productivity increase of 1% will lead to increase sugar production with 0.4210%



- Increase the use of production capacity by 1% will result in increased production of sugar by 0.1506%.

For  $r_{yx}$  the following results are obtained:

$$r_{yx1} = 0,0242; r_{yx2} = 0,7312; r_{yx3} = 0,6906,$$

And for the partial coefficients of determinants

$$d_1^2 = 0,0010; d_2^2 = 0,3899; d_3^2 = 0,1473;$$

thus, the yield of agricultural land, average annual labor productivity and utilization of production capacity determined change in physical production of sugar by 0.10%, 38.99% and 14.73%. (Table 7).

**Table 7: Participation rate on sugar production factors**

INDICATORS	%
Sugar production from sugar beet	100,00
Return on agricultural land	0,10
Average annual labor productivity	38,99
Utilization of production capacity	14,73
Other factors	46,18

Source: Own calculations

The results obtained (Table 7) show that the largest share of production has achieved a factor  $x_2$ , average annual labor productivity, ie 38.99%.

$X_1$ , agricultural land has led to yield 0.10% of production, as the factor that has contributed the lowest proportion of production from.

Utilization of production capacity has a weight of 14.73%.

For factory at Bod was obtained following regression equation:  $y = 909.46 + 4.74 x_1 + 20.55x_2 + 36.09X_3$

Regression coefficients in the obtained equation shows an increase in the amount of sugar obtained from sugar beet:

- by 4.74 tonnes if the yield of agricultural land increases by a tonne of sugar beet per hectare;
- by 20.55 tons when the average labor productivity is increased by one tonne of sugar beet per employee;
- 36.09 tons when the utilization of production capacity increases by one unit

Elasticity coefficients will be

- For  $x_1: E_1 = 0,0090$
- For  $x_2: E_2 = 0,7523$
- For  $x_3: E_3 = 0,1720$

The elasticity coefficients calculated values allow us to state that:

- increase efficiency by 1% of agricultural land will help increase sugar production by 0.0090%;
- Average annual labor productivity increase of 1% will lead to increase sugar production with 0.7523%
- increase the use of production capacity by 1% will result in increased production of sugar by 0.1720%.

Applying the methodology of calculation the following results are obtained for  $r_{yxi}$ :

$$r_{yx1}=0,4981; \quad r_{yx2}=0,9948; \quad r_{yx3}=0,9557,$$

And for the partial coefficients of determinants:

$$d_1^2 = 0,0043; d_2^2 = 0,8653; d_3^2 = 0,1217;$$

Thus, the yield of agricultural land, average annual labor productivity and utilization of production capacity determined change in physical production of sugar by 0.43%, 86.53% and 12.17%. (Table 8).

**Table 8: The participation rate on sugar production factors**

INDICATORS	%
Sugar production from sugar beet	100,00
Return on agricultural land	0,43
Average annual labor productivity	86,53

Utilization of production capacity	12,17
Other factors	0,87

Source: Own calculations

The results obtained (Table 8) show that the largest share of production has achieved a factor  $x_2$ , average annual labor productivity, ie 86.53%.  $x_1$ , yield of agricultural land has led to 0.43% of production, as the factor that has contributed the lowest proportion of production from. Utilization of production capacity has a weight of 12.17%.

#### 4. Conclusions

The aggregate analysis model of the use of production factors proposed to determine the following regression equations

- sugar Oradea  $y = 3020.68 + 168.90 x_1 + 0.95 x_2 + 232.48 x_3$  which shows an increase in the amount of sugar obtained from sugar beet: to 345.87 tonnes, where the yield of agricultural land increased by one tonne of sugar beet per hectare to 0.95 tonnes, where average labor productivity is increased by one tonne of sugar beet per employee, with 232.48 tonnes when utilization of production capacity increase by one unit;
- In Ludus sugar  $y = 8.369,54 + 31,80x_1 + 17,91x_2 + 49,23x_3$  which shows a 49.23 increase in the amount of sugar obtained from sugar beet: with 31.80 tonnes, where the yield of agricultural land increased by a tonne of sugar beet per hectare, 17.91 tons, where average labor productivity is increased by one tonne of sugar beet per employee, with 49.23 tons when utilization of production capacity increases by one unit .
- For Sugar Bod  $y = 909.46 + 4.74 x_1 + 20.55 x_2 + 36.09 X_3$ , which shows an increase in the amount of sugar obtained from sugar beet: with 4.74 tonnes of agricultural land where the yield increases by a tonne of sugar beet per hectare, 20.55 tons, where average labor productivity is increased by one tonne of sugar beet per employee, with 36.09 tons when utilization of production capacity increases by one unit.

#### 5. References

- Dobrotă, N. (1997) *Economie Politică*, Bucharest, Editura Economică
- Petre D.A. (1996), Metode de determinare și analiză a eficienței utilizării capitalului firmei, Bucharest, Doctor's Thesis
- Petty W., (1662) *Treatise on Taxes and Contributions*, London, Printed for N. Brooke
- Smith A., (1776) *Avuția națiunilor: cercetare asupra naturii și cauzelor ei*, Bucharest, Editura Academiei Romane
- Statistics Office of the European Union, available at <http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/themes>
- Statistics of Sugar Employers' Association, available at <http://www.zahar.ro/anonymous/default.aspx/statistici>

# TEAMS AND THEIR ROLE IN MODERN ORGANIZATIONS

*MUSCALU Emanoil*  
*Professor Dr, Faculty of Economics*  
*“Lucian Blaga” University of Sibiu, Romania*  
*emanoil.muscalu@ulbsibiu.ro*

*MUNTEAN Silvana Nicoleta*  
*Ph.D. student, Faculty of Economics*  
*“Lucian Blaga” University of Sibiu, Romania*  
*silvana.muntean@yahoo.com*

**Abstract:** *Nowadays the economic environment is characterized more and more by the need for competence, which has entailed an increased focus on the human potential and its capacities. Thus, competitiveness and development in modern organizations are often connected to their capacity of valorising the human resource and to the necessity of using teamwork. Hence, in order to accomplish targets successfully teamwork becomes one of the main factors that may offer a solution to the problems faced by organizations and contemporary society and may also provide development and progress in the future.*

*Therefore, the theoretical approach of some aspects concerning the definition, place, role typology and characteristics of an efficient team as well as their investigation within the modern organization are important matters in this field of social reality and issues which are the object of our concern in this study.*

**Keywords:** *team, team leader, team typology, modern organizations, efficiency.*

**JEL Classification :** M 12

## 1. Introduction

The manager and his work within organizations is a debated and sometimes controversial subject both in theory and practice. All the persons involved in the managerial process concentrate their attention on the human potential and propose new solutions which take into account aspects that are ignored or partially known at present (Nicolescu, 2004, p. 331). Thus, modern economic organizations modify their structures, abandon rigid hierarchies, look for organizational solutions to valorise the creativity and talent of their members, use more and more often teamwork. In any type of activity success is most of the times the result of common effort, of teamwork. Accomplishments or defeats are caused neither by the manager nor by the employees only, they are the result of the cooperation between both sides. Reality proves that it is not enough to have a group made up of strong, competent and experienced personalities. If there are not compatibilities between the two teams, mutual agreement, ideas and common motivations focused on accepting a collective aim, solidarity and comradeship excellent result cannot be obtained. Valorising each person's working potential or evolution in one's career cannot be obtained without working and respecting the requirements imposed by the formation and maintenance of the teamwork spirit. This state of mind which increases the quality and productivity of a person's work can be reached only when people understand that the whole does not mean making a sum of the parts involved, but something more which springs from the interaction with the group, from the harmony of interpersonal relations, from the identification of the individuals with the values and aims of the entire group. Working in a disunited group – where quarrels or misunderstandings are frequent, egos resents, alienation, disregard or indifference predominate and each person tries to solve problems on one's own while criticizing the others – becomes a serious obstacle against the concept of working with pleasure. In order to avoid this situation, each person should contribute to transforming a number of people who work together in a homogeneous and functional group. (\* \* \* <http://www.munca.ro/articole/?idarticol=117>, last accessed: 07.03.2012).

The advantages of teamwork are obvious, starting from valorising in a better way each member's resources, from solving complex problems which require opinions and special knowledge to the fact that teamwork represents an excellent learning environment. Also teams are more target oriented than the organization as a whole, being able to establish their own opinions and aim easier, are more flexible than organizational groups because they can be formed in a simpler manner, dissolved, rearranged, resized and favour responsibility delegation since they offer the guarantee of controlling its members' behaviour by specific norms.

The principle according to which they function, namely “all for one and one for all” puts forward the condition of learning loyalty and of solving efficiently the problems of the organization. That can be achieved best by knowing the content, typology and characteristics of the team very well.

## **2. Team typology**

Several types of team typologies can be found within organizations (Lefter, Deaconu, 2008, p.308) and thdepend on the situation at the moment or on the complexity of the problem to be solved.

*a.* In order to solve some problems *special teams* are formed, being generally made up of 5 – 10 members whose role is:

- to analyze a certain state of affairs;
- to eliminate a problem;
- to optimize a certain field;
- to improve the general working environment.

When an agreement is reached, the members of a team suggest possible solutions to the management. After solving the problem, the team is generally annulled. This type of team does not always work easily. Many of its members participate in the given project only because they have to and are only partially involved. They often consider that their involvement within such a team prevents them from solving their own tasks within the department where they work and are displeased.

*b.* In other cases, the management needs to reduce the activities imposed by a traditional working context and pay more attention to observing the environment and the strategic positioning of its organization. This becomes possible when it works with *self-led* teams (first appeared after 1990). These teams are made up of 5 – 15 creative, qualified persons with cross-functional training, who interact and have the responsibility and authority to fulfil a series of specific activities. They plan, organize and control their activity taking into account some directions and minimal interference from the part of the management. Self-led teams are more and more numerous: on the one hand they are required by the business environment nowadays, on the other hand they are preferred by the employees who want greater freedom at work. In addition, the speed of changes demands permanent adaptability from the part of the employees.

To provide the success of a self-led team, the manager has to select carefully and train well its members.

*c.* The necessity to focus on a specific objective imposed the creation of *cross-functional teams* , made up of members belonging to different functional fields of the organization (marketing, finance, human resources, production, etc.). Coming from different departments, the members of such a team have the necessary knowledge to fulfill the tasks they have and they can cooperate efficiently with their departments. In the category of cross-functional teams there are the following types: teams created to select and implement new technologies; teams created to improve the efficiency of marketing, teams created to control production costs. The three types of teams can often combine: a special team made up for solving a problem can be at the same time both a self-led and cross-functional team. Before creating a team, managers have to analyze carefully the concrete situation within the organization and build the sort of team which best serves the current needs.

In the process of team forming, the experience of the members is very important, but that can also have a negative connotation – habits or old practices, the fear of doing new things, namely conservativeness and routine. Forming a team means harmonizing different personalities. Proving one’s ability as team leader also depends on one’s capacity of creating a working team which should achieve the wanted targets (Oprean, 2006, p 309 - 310).

Obviously, fulfilling such an important objective is conditioned by the field where the team works, by the resources it detains, by the particularities of its creation, by its evolution and development.

## **3.The stages of team evolution**

In order to enable some fundamental relations between the leader and his team, the former has to adapt himself to the specificity of the members and also to know the stages (Lefter, Deaconu, 2008, p.310) and characteristics concerning each stage of the team’s evolution, namely:

*a)The formation.* During this first stage, the members of the team become familiar with each other. They acknowledge the problems they will face, the requirements they have to meet, the type of authority within the team, the person in charge, the traits of the team. The stage of team formation is generally characterized by incertitude and stress. Knowing that the team members try to adapt themselves both to

their new working situation and to each other, managers should tolerate the long informal conversations where specific elements of the team are explored and should not consider them a waste of time.

**b)The storm.** After the formation process, teams are confronted with this stage – characterized by conflicts and misunderstandings connected to the clarification of the individual roles of the members. The way of functioning is permanently contested and the team seems to lack unity. To help the team get over the storm, managers have to encourage its members to feel free, to criticize any problem that concerns the team and to state their points of view completely and correctly. Moreover, managers have to favour the harmonization of opinions within the team in order to make the fulfilment of the objectives possible.

**c)Normalization.** During this stage, the members of the team begin to understand and accept their roles, to obey the rules and adopt proper attitudes for teamwork. The conflicts appeared in the previous stage are now solved. During this stage, norms, values and behaviours established within the team are transferred to the organization and may be essential to its success. At the level of the team, the achievements obtained now can favour its future productivity.

**d)Annulment.** This stage marks the end of the team's mission and prepares its dissolution. Suspension appears only with the teams created for a limited period. During the dissolution period, the members of the team are generally disappointed that the team disappears, as that involves losing some personal relations and / or some pleasant working situations. Managers have to be aware of the state of mind created within the ex teams and make efforts to integrate their members in new teams or activities that should be as challenging and attractive as the former ones. It is not compulsory for all the teams to cross these stages. However, knowing this cycle enables managers to:

- get useful information about the way in which teams function;
- adapt their action in accordance with the characteristics of the new or mature teams;
- accelerate the maturation process of teams in order to benefit from their maximal productivity.

At the same time, for teams to function well and be successful within organizations, their managers have to take care of respecting some basic requirements, among which we mention:

- Positive interaction. Good cooperation between the members of the team facilitates obtaining the desired results and offers satisfactions to all those involved. Obviously, individualists have their place in the team, but the feeling of satisfaction grows if cooperation appears.
- Actual involvement. A team functions well if its members have direct contact with each other. There are more and more situations when they are at a distance of hundreds of miles or even on different continents (the virtual team).
- Learning within the team. The members of the team learn from each other and transmit their own knowledge.
- Developing certain abilities that make the team function normally (communication, cooperation).

The stages of a team's evolution have deep social, psychological and ethical implications and shaping the members of the team in accordance with all these values is a dynamic process which requires taking into account the level of homogeneity and heterogeneity of the group, the structure of the relations between members, the opinion phenomenon existing at a certain time. All these aspects, if known thoroughly by managers, give the opportunity of acting operatively, reasonably in order to achieve in an optimal way each stage of a team's evolution.

#### **4. Characteristics of an efficient team – case study**

A team's efficiency is commonly believed to be given, in the first place, by the trust, reliability, capacity and integration of its members. We cannot speak about efficient teams if its members do not trust each other or the leader of the team – the person invested to make decisions. Also, the management of the organization plays a very important role in increasing the efficiency of teamwork.

In order to identify the necessary characteristics of an efficient team we made a case study using survey as a method and the questionnaire as a means of research. Starting from delimitating our aim here as realistic as possible, we have established the following objectives:

*General objective*

Outlining the traits a team should have in order to be efficient.

*Specific objectives*

Establishing the main contributions of a team's members in order to make it efficient in influencing the members of an organization.

The analysis of the main characteristics belonging to the team leader.

The identification of a correlation between the capacity of the team's members and its results.

The elaboration of some conclusions and favourable, constructive suggestions in order to improve the performance of teamwork.

### *Hypotheses*

The starting hypothesis in our investigation was already suggested in the theoretical part of the paper, where it was asserted that the efficiency of the team depends on certain factors and the members of the team as well as its leader have to possess certain qualities.

#### *General hypothesis*

The efficiency of the team is influenced by the capacity of each member.

This hypothesis can become operational and the following enunciations result:

1. The more the members of the team prove tolerance, flexibility, adaptation to changes, the more their decisions and actions provide efficiency within the team.
2. The achievements or the failures of the team are determined, in the first place, by the situation of the action.
3. If the team leader is a capable person and pays attention to the cooperation between the members, the quality and efficiency of the team increases.

#### *Research methods*

Since this research intends to take into account the opinions and attitudes concerning the traits of an efficient team, to focus on the way in which a certain situation influences the members of the team and on the qualities that the members need to fulfil in order to make an efficient team, we considered best to use the survey as research method and the questionnaire as a study instrument.

#### *Sampling*

Research was made on a representative sample made up of 50 persons working for SNR Rulmenți Sibiu and selected arbitrarily. Our attempt was to choose persons from different environments, belonging to both sexes and of different age. The sample obtained is rendered in the table below:

Status	Members within the team		Team leader	
Sex	Feminine	Masculine	Feminine	Masculine
Number of persons	16	25	4	5

### **Results and discussions**

After using the questionnaire and analyzing the data, some answers were obtained and a part of them is presented in what follows. Thus, the focus is on the opinions of the questioned persons concerning the characteristics of an efficient team and of a competitive team leader.

*Question no. 1:* We would like you to estimate the following contributions of the team members in order to obtain efficiency by giving marks from 1 to 5 (1 – Not important at all; 2 – Little important; 3 – Neither / nor; 4 – Important; 5 – Very important):

Variable	
a. Quick identification of opportunities	f. Working under pressure
b. Working with different types of people	g. Continuous training of the team members
c. Producing ideas easily	h. Getting objectives in due time
d. The increased capacity of attention	i. Communication within the team
e. Offering without bias, if needed, alternative viable solutions	

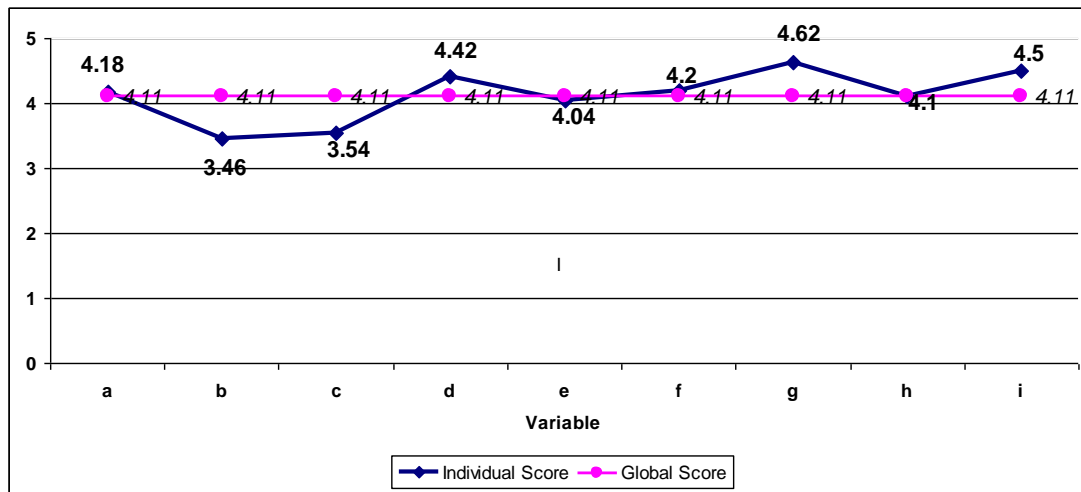


Figure no. 1 Interpreting scores for question no. 1.

Taking into account the collected data, both the score for each factor and the global score was rated. By analyzing the answers it is noticed that the questioned persons consider *the continuous training of the team members* to be the most important contribution to the team's efficiency (score 4,62). *Communication within the team* (score 4,5) is also very important, being followed by *the increased capacity of attention* (score 4,42) and by *working under pressure*, whereas the global score is 4,11

*Question no. 2:* Which is the most important trait you consider a team leader should have?

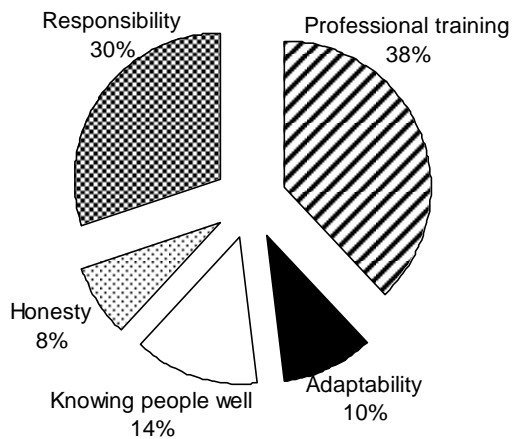


Figure no. 2 Necessary traits for a team leader

After analyzing the given answers, it can be noticed that professional training, which has a percentage of 38% , is the most important characteristic in the opinion of the persons questioned, followed by responsibility – 30 % (fig. 2).

*Question number 3:* Is trust within a team essential in order to perform efficient activities?

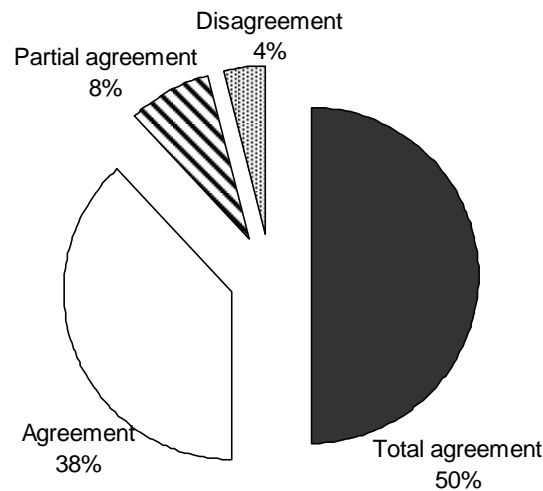


Figure no. 3 Trust within the team

Trust within the team is an essential condition for the team to be efficient; 50% of the people questioned totally agree that trust must exist, 30% agree with this and nobody chose the variant “Total disagreement” (fig. 3).

*Question no. 4:* Do you consider that decision making is the exclusive task of the leadership within the team?

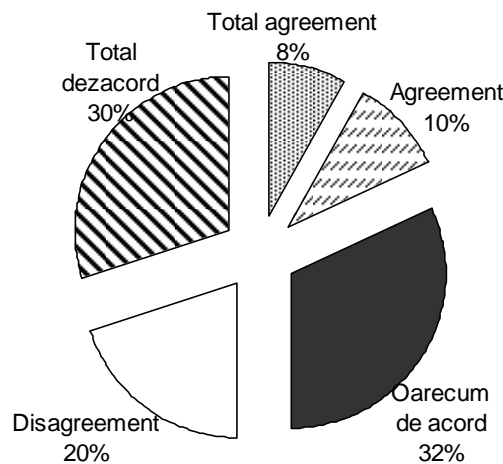


Fig. 4 – The distribution of the answers concerning decision making as the exclusive task of the leadership within the team

8 % of the persons questioned consider that decision making is the exclusive task of the leadership within the team and 10% agree with this matter. 32% partially agree, whereas 20% disagree and 30% totally disagree with this. Thus, the necessity of paying much attention to all the members of the team when making decisions is outlined. (Fig. 4).

*Question no. 5:* How can the team leader contribute to the formation and consolidation of an efficient team?

The persons questioned consider that the team leader has an important role in consolidating an efficient team and that means communication with the team members, great involvement in task solving, agreeing and cooperating with the members of the team. The motivation of the members also has an important role.



*Question no. 6:* Do you think there is a balance between your job description and the things you are asked to do within the team?

94% of the people questioned believe there is a balance between their job description and the work proper and the cases when they have to fulfil tasks that are not mentioned in their job description are very rare, which proves that the responsibilities of each member are well identified and respected.

*Question no. 7:* Is there a favourable environment within the team in order to express and put into practice the ideas of its members?

The majority of the persons questioned consider that teamwork takes place in an extremely attractive environment, which favours expressing points of view and new ideas. Thus, cooperation within the team is present and means finding some opportunities rapidly and solving problems efficiently.

*Question no. 8:* Do you consider that your relations with the other members of the team are strictly professional or do they also involve friendship?

80% of the persons questioned have both professional and friendly relations with the other members of the team due to the good cooperation within the team. That is mainly facilitated by the favourable environment and by the team leader who manages to create union and maintain cooperation within the team.

*Question no. 9:* Do you help the other members within the team to solve tasks, if necessary?

- a. Yes. Why?
- b. No. Why not?

85% of the people questioned help their colleagues in need due to the existing team spirit and to the wish of succeeding, considering that the efficient team functions in accordance with the principle "all for one and one for all". Those who do not provide assistance have this attitude because they do not understand help or they lack knowledge in the field.

*Question no. 10:* Which are the main causes that generate tension within the team?

The main tensions are caused by deadlines when tasks are not solved yet, or by the ideas that are not accepted by the other members of the team. Tensions also appear when the tasks of each separate member are not very well understood.

The fact that the opinions of the persons questioned differ is not new, irrespective of the field or subject under discussion. The problems discussed with the individuals participating in this questionnaire are not an exception from the rule.

In order to develop a qualitative activity within an efficient team, thorough professional training is necessary. This is not the only requirement, but it is an important one. This aspect, combined with responsibility, with continuous learning and communication within the team can lead to efficiency.

Thus, efficient teams successfully fulfill the needs of organizations and the capable team leader contributes to task solving and to the creation of a favourable environment in order to put into practice new ideas.

## **5. Conclusions**

The conclusions of this research on efficiency within the team led to the idea that the permanent training of the team members is an essential condition nowadays to keep up with requirements and high standards. Therefore, team leaders should not get involved only in identifying problematic situations and finding solutions, but they should also consider the responsibility of valorizing information and making decisions in accordance with the contribution of the collaborators and preceded by shaping situations and simulating the consequences of the options considered plausible and favourable.

Thus, through real involvement of each member within the team, through cooperation based on trust, through respecting the job description, through consolidating the relation team leader – team member, as a condition of a lasting organizational development, it is possible to obtain the performance required in order to successfully fulfil the objectives of the organization and to permanently identify new opportunities.

As shown in this study, the efficient team possesses those indispensable qualities connected to trust, responsibility, professional training and permanent learning which enable the team to fulfil tasks and identify opportunities. That is why team leaders must pay much attention to the force of the human mind, to participate in training programmes concerning influencing techniques and be aware of the importance of certain personal qualities which help the motivation process, more specifically to train these qualities.

## **6. Bibliography**

- Adair J. și Reed P. (2004) *Nu boss, ci leader. Cum să conduci pe drumul către succes*, translation Cora Radulian, Editura Meteor Press, București.
- Lefter V., Deaconu A. (coord.) (2008) *Managementul resurselor umane – Teorie și practică, Ediția a doua*, Editura Economică, București.
- Nicolescu O. (2004) *Managerii și managementul resurselor umane*, Editura Economică, București.
- Oprean C. (coord), (2006) *Metode și Tehnici ale Cunoașterii Științifice*, Editura Universității „Lucian Blaga” din Sibiu.
- Verboncu I. și Zalman M. (2005) *Management și performanțe*, Editura Universitară, București.
- \* \* \* <http://www.munca.ro/articole/?idarticol=117>, last accessed 07.03.2012

# EMPLOYMENT TREND AND UNEMPLOYMENT ISSUE IN ROMANIAN ECONOMY

*MUSCALU Emanoil*

*Professor, PhD.*

*Faculty of Economics Sibiu, Romania, [emanoil.muscalu@ulbsibiu.ro](mailto:emanoil.muscalu@ulbsibiu.ro)*

*STANIT Alexandra*

*Teaching Assistant, PhD student*

*Faculty of Economics, "Lucian Blaga" University of Sibiu Sibiu, Romania, [stanit.alexandra@yahoo.com](mailto:stanit.alexandra@yahoo.com)*

**Abstract:** *Employment in Romania faces developments, processes and trends that reflect direct and indirect influences of the national economic system, suggesting that the problems of employment are far from being solved quickly and efficiently. The economic situation triggered changes on the labour market, characterised by employment rates lower than European averages, unemployment rates that had entered on a downward trend but that are now back as an extremely serious problem brought by the economic crisis. The social system is mainly affected by the situation on the labour market, reflected by the evolution of indicators regarding the employment rate and the employment structure by age groups, industries, labour productivity indicators, and those who emphasise the concerns of structural unemployment. Overall, prospects outline minimal changes in the living standards, especially in the current economic context.*

**Key words:** human resources, sustainable development, work force, employment, unemployment.

**JEL classification:** E24

## 1. Introduction

Making performance by using labour resources is conditioned by the features of employment pattern, which, as part of the working mechanism of the labour market, reflects the relations regarding the allocation, reallocation, remuneration, social protection insurance and labour force reorientation. In Romania, structural changes of the transition period have brought a substantial reduction of labour force and employment on the labour market and also significant adjustments of the economic sectors, regions, property, age and professional status, demographic trends and massive migration also contributing to these changes.

## 2. Employment dynamics

Active population and employed has decreased until 2005, and then we notice a slightly increasing trend in 2006, in the following years values fluctuating around the same figures. In 2009, the numbers of all indicators on labour force have decreased, as a reflection of the questionable economic situation generated by the crisis. The activity rate and the employment rate have had the same dynamics. The employment rate of the population aged between 20-64 has been of 63,5%, at a distance of 6,5 percentage points from Lisbon objective recommendation (a 70% rate of employment). An analysis of the evolution in time of the labour force structure reveals a clear tendency of shift of employment from urban to rural areas, especially during the first year of transition, when restitution of land stimulated employment in agriculture. This tendency is more obvious in poor regions, where subsistence farming is the only source of income.

**Table 1. Evolution of main indicators on employment, 2001-2009**

	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Active population</b>	11.151	10.079	9.915	9.957	9.851	10.041	9.994	9.994	9.930
<b>Employed population</b>	10.440	9.234	9.223	9.158	9.147	9.313	9.353	9.369	9.092
<b>Employees</b>	4.623	4.619	4.567	4.590	5.921	6.167	6.197	6.1317	6.075
<b>Activity rate</b>	67,7	63,6	62,4	63,2	62,4	63,7	63	62,9	62,9
<b>Employment rate</b>	62,9	58,0	57,8	57,9	57,7	58,8	58,8	59	57,3

*Source:* National Institute for Statistics, *Labour force indicators (AMIGO data)*, [www.insse.ro](http://www.insse.ro), supplemented with data from the National Commission for Prognosis, *Projection of main macroeconomic indicators for 2009-2014*, 5 November 2009, p 35

The greatest decrease in the employment rate is for the age group 15-24, respectively 55-64. In the first case, the explanation is given by the increase of people attending higher education, while in the second case, the situation occurs as a result of the increased competition on the labour market, older people not being able to adapt to the new requirements imposed by the market economy (knowledge of foreign languages, computer skills). This feature is common to both women and men, but with a significant decrease for women in the age group 55-64. (Zaman C., 2007)

In 2009, the employment rate of working age population (15-64) was 58,6%, down from the previous years. This indicator had, as in previous years, higher values for men (65,2% versus 52,0% for women) and for people in rural areas (60,7% versus 57,1% in urban areas). The employment rate for young people (5-24 years) was 24,5%, while the employment rate for older people (55-64 years) was 42,6%. The highest employment rate for people of working age has been among higher education graduates (84,1%). As the level of education decreases, the level of employment also decreases. Therefore, 62,2% of the people with medium level of education were employed and only 42,0% of those with low level of education. Although lower than the previous year (-104 thousand people), employees have the largest share (67,2%) in total employment. In 2009, self-employed and unpaid family workers represented 31,3% of the employed population. The distribution of occupation groups shows that farmers and skilled workers in agriculture, forestry and fishing accounted for 24,0% of total employment. A significant proportion (15,8%) was held by the categories of craftsmen and skilled workers in trades.

One of the most relevant features of the general employment pattern is employment by sectors, because its analysis may emphasize a number of defining features of the national economy, such as: the historical economic and social development stage of a country, materialised in lower or higher levels of concentration of the population employed in agriculture (primary stage), industry (secondary stage) and services (tertiary stage), as well as the efficiency of using labour force in those three sectors, since it is well known that each sector has a specific productivity, usually lower for the primary sector and higher in the tertiary sector (Răboacă G., 2000).

We are thus witnessing the so-called reorganisation process, under poor efficiency due to changes in the structure of agricultural property and of the fact that agriculture absorbed people laid off from privatization. Although numbers on employment in agriculture have decreased by approximately 10% and it is projected to have a more pronounced decline in the future, Romania has a different situation from the other member states (EU-15, in 2003, 4% of the employed population worked in agriculture), because of this extremely high percentage of population working in agriculture, which is considered a socio-demographic and economic downfall. The decrease of population employed in agriculture is subject to the time related to the process of giving up subsistence farming.

In the secondary sector, with the highest loss of jobs, the employed population has dropped significantly during the first years of transition, then levelling off at around 24%, the prognosis unrevealing significant changes in the future. From the total of persons employed in industry, almost 90% belong to the manufacturing industry.

In the services sector, although we are witnessing an increase of the percentage of the population employed by approximately 10% and even a more significant increase is expected, the economy does not manage to create but a small number of jobs, and as compared to the situation in Europe, where the percentage of the population employed in services is of approximately 70%, we are still very far. This increase in the number of people employed in services is not the result of job transfer from the two first sectors, but it is the effect of industrial activity decrease. The service sector has not demonstrated its role of jobs' generator and absorber of people released from industry, and agriculture turned into an area of refuge.

The prognosis from the National Prognosis Commission does not reveal a positive outlook for the reduction of disparities from the EU. Therefore, it is predicted that at the end of the time period, 16% of the population is employed in agriculture, 10,8% in constructions, 24,2% in industry and 49% in services. These figures do not take into account the mutations on the labour market, which occur due to the problems generated by the economic crisis. To reduce disparities in the employment rate, employment in the tertiary sector should increase because, currently, employment in the tertiary sector is the most important factor for changing the occupational structure. The main advantage of a majority occupation

rate in the tertiary sector is increasing flexibility in the operation of the productive sector and increasing labour force movement.

Changing pattern of employment, no matter how difficult and expensive it may seem, is more than necessary, is even required to move from poverty to economic welfare. We believe that in Romania, both the secondary and tertiary sectors still have great potential to exploit.

Employment by professional status is a criterion for assessing the processes and tendencies in the labour market. Romanian statistics distinguishes the following categories of persons grouped according to the professional status: employee, employer, self-employed, unpaid family worker and member of an agricultural company or a cooperative. The sizes of these categories may characterise the labour force dynamics and the economic-social development.

The employee status belongs to the large industrial and service productions, with protection and special rights, but also with obligations, while the other categories require a high degree of risk and insecurity. We may talk of a “non-remuneration” process of the employment structure, due to the rapid loss of the number of employees, with all its negative effects on work productivity, size and structure of population incomes and on budgetary revenues.

In the distribution of employed population by types of property, we notice progress, namely the reduction of population employed in the majority state sector, at the same time with the increase of people employed in the private sector.

An analysis of the population employed by hours worked shows that in 2009, 90,2% of the persons employed worked full-time, but only 9,8% worked part-time, which reflects the phenomenon of underemployment. The part-time employment rate in Romania is under the level of that registered in the EU (approximately 20%).

In 2009, the average actual working week for the primary activity was 39,4 hours per week; 277 thousand people carried out secondary activities, working on average 14,4 hours a week. The average actual working week in the primary and secondary activity was 39,8 hours a week. There is a greater inclination for the less than 40 hours work in the female employment, as compared to the employed male population, while for the over 40 hours work, the situation is reversed.

There should be mentioned that, usually, the option for a working schedule of over 40 hours is related to the need for survival and success of small businesses, and it does not favour the quality of life, but it even increases the risk of reducing it. Moreover, the preponderance of women in part-time employment or underemployment is not a matter of preference, but a requirement imposed by family and society.

The increase of employment uncertainty is caused by employment in occasional jobs, with low wages, when there is a parallel labour market, various seasonal activities, substitution of labour contract with civil conventions and the existence of certain atypical types of employment.

Another indicator regarding the labour market reflecting the economic development is the work productivity. On the overall economy, labour productivity has advanced during 2003-2007 with a higher rate than the gross average wage. Labour productivity increased by 30,5% in 2003, by 26,9% in 2004, 18,7% in 2005, 18,9% in 2006 and by 17,8% in 2007, according to the National Institute of Statistics. In 2009, labour productivity has increased in most Romanian economic fields, as related to the previous year, because the number of employees has decreased more than the turnover in that sector.

Labour productivity has not been a major focus of management in the last years, while the domestic market grew by itself, but the crisis may be a good opportunity to reconsider the productivity factor within companies and institutions.

With regard to the average gross wage, it increased by 24,8% in 2003, by 23,3% in 2004, in 2005 it increased by 18,3%, in 2006 by 18,4%, while last year the increase was of 22,6%. Productivity growth was higher than wages until 2006, in 2007 the situation being reversed, a thing expected to happen in 2008, too. For the overall industry, labour productivity increased by 9,9% in 2007.

There are however some doubts regarding these statistics because this labour productivity index globally is somehow an illusion, because if for the denominator there is something objective, namely the number of workers in the economy, the numerator collects value expressions, not only from the actual sector of the economy, but from other sectors that are not sources of productivity, such as many activities in services, including the financial ones. Therefore, the global increases of labour productivity of the last years are positive and not because these are the results of the real economy, but because both the consumption growth without coverage from import and “the achievements” in the financial-speculative areas of the economy are counted.

If we were to examine the productivity of industry, we could also not consider this indicator relevant if we were to consider the place and role of industry in the economy, and in Romania, industry is a sector that stands on the defensive, in which productivity gains occur not necessarily from production bonuses, but especially on account of restructuring.

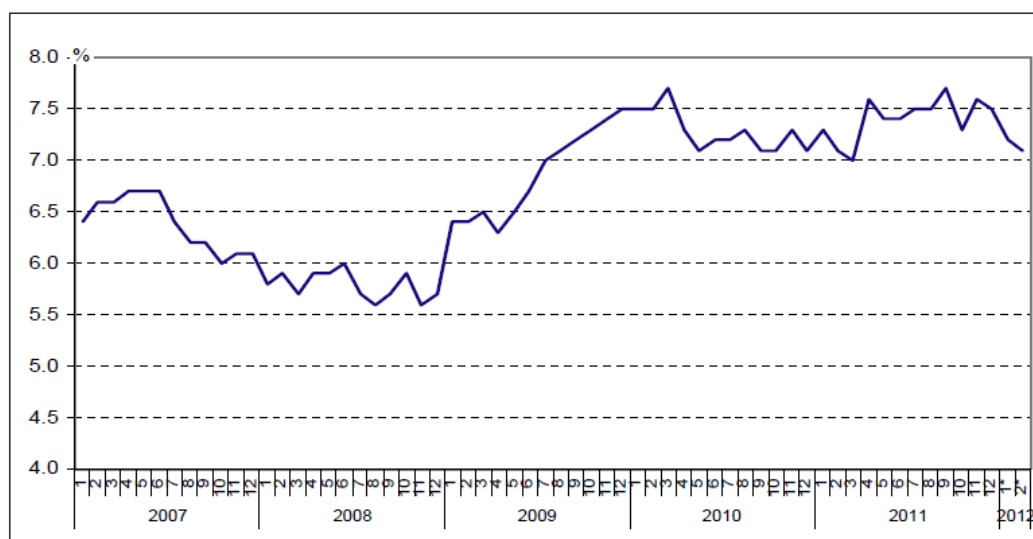
With all these optimistic figures, Romania occupies the last but one place among EU states regarding labour productivity per employee, at approximately half the European average.

### 3. Unemployment problem

At the end of 2009, the number of unemployed reached 709.383 people, a level unattained since April 2003, which corresponds to an unemployment rate of 7,8%. During the first months of 2010, the unemployment rate was situated at approximately 7,4%.

An analysis of the unemployment structure by sex, age groups and education reveals that at the beginning of the '90s, women had the main share of the unemployed, and then beginning with 1997, it reduced, as a result of collective redundancies in constructions, mining and metallurgy, sectors predominantly with male employees. Another factor that contributed to lower unemployment for women was the increase of clothing and footwear sector where the labour force is mostly made up of women.

**Table 2. Evolution of unemployment rate, 2007-2012**



Source: National Institute for Statistics, *Labour force indicators (AMIGO data)*, [www.insse.ro](http://www.insse.ro), supplemented with data from the National Commission for Prognosis, *Projection of main macroeconomic indicators for 2009-2014*, 5 November 2009, p 35

In terms of unemployment structure by age groups, the most affected category was the 15-24 years group, followed by the 25-34 years and that over 50 years. Therefore, the greatest difficulties are for the young and for those close to retirement. The most alarming structural problems are the increase of unemployment for young people, i.e. long-term unemployment. Unemployment rate for the young population is growing, showing the lack of new and attractive jobs for them, considering that the education of new generations and their expectations have increased. Nearly 60% of the Romanian unemployed are under 35 years, a fact with negative economic consequences (the most creative human resources are not being used) and social (their attitude towards work is affected in a negative way) (Vorzsak M., Guț C.; 2008).

With regard to unemployment duration, the long-term one tends to become a serious problem. Long-term unemployment has implications both in terms of professional integration, which is becoming increasingly more difficult as time passes and the antisocial manifestation that this phenomenon generates. (Pirciog S. 1996)

According to the data from the National Institute of Statistics, in 2009, long-term ILO unemployment (unemployed for a year and over) was 2,1%. The incidence of long-term ILO unemployment rate (the percentage of people unemployed for a year and over in the total number of unemployed) was 30,9%. Long-term unemployment was more strongly manifested at men (31,6% as compared to 29,8% in females) and in the urban areas (32,2% as compared to 28,7% in the rural areas).

For the youth (15-24 years), long-term unemployment rate (unemployed for six months and over) was 10,3%, and the incidence of long-term unemployment among the youth was 49,5%.

In terms of education, around 70% of unemployed have medium education studies, approximately 24% have elementary education and approximately 6% have higher education. In time, the rate of unemployed with primary and secondary education increased the rate of unemployed with secondary and post-secondary education decreased, while the percentage of those with higher education remained the same. The data from 2009 also certify that unemployment has affected to a greater extent low and medium education graduates for which unemployment rate was 7,5% and 7,2%, much higher than the rate of unemployed with higher education (4,3%).

Therefore, we can state that the most affected categories of the population are the people over 45 years, the youth and people with low levels of education.

A thorough analysis of the unemployment phenomenon should also take into account the masking methods, which have made it that the maximum levels of unemployment are approximately 10% lower than those from the new member states during the transition period. Restructuring of the Romanian economy was partial and delayed, with negative consequences on the economic development.

One way of masking unemployed is as pensioners. Approximately 1/3 of the population has benefited from this status, although only one of three retired persons met the retirement age. As a result of the economic restructuring process, many people who met the seniority requirements, but not those of age have been retired. Between 2002 and 2005, the number of people retired earlier increased by 50%, and for the partial early retirement by 84,1%, such a phenomenon being abnormal.

Also, the activity of subsistence in agriculture disguised many unemployed in farmers. In the mid '90s, a massive flow of migration from urban to rural areas started, those laid off from industry returning to their villages. Thus employment in agriculture has increased substantially, especially until 2000.

Then, another way of masking unemployment was by consistent external migration. We may talk about masking the unemployment methods, while the decrease of unemployment did not correspond to the proportional increase of employment. This suggests that, due to the limited employment opportunities, part of the labour force left the labour market, another focused on agriculture and another on black labour.

To solve these problems, it is necessary to improve access to educational programmes, to secondary and higher education, especially among rural population, to improve access to training programmes for employees and unemployed, to increase active measures for testing and evaluation of changes on the labour market, to provide assistance for people looking for a job, to ensure equal opportunities and promote the active role of social partners. Another important element would be to provide access and participation in life-long learning, providing a correlation between existing skills and market needs, entrepreneurial education for adults and increased number of suppliers of training programmes. But none of these will work unless the economic situation improves and it is able to provide new jobs.

#### **4. Forecasts for 2013**

The National Commission for Prognosis estimates for 2009-2013 period an increase of the active working population by approximately 145 thousand people. The working age employment will increase by approximately 340 000 people, mainly due to the increase of foreign investments, increase of competitiveness and not least, the increase of salaries.

It should also be underlined that the labour resource requirements will be maintained over the possibilities of the working aged population. We are talking about the fact that although the degree of inactivity will reduce, the percentage of those who, for various reasons, do not want to work in the labour market remains high.

In 2009, the active population of working age was 62,4% of the total working age population (9,4 million as compared to 15 million); it is estimated that in 2013 around 400 000 jobs will be covered by other categories of active population, either outside the working age, or from foreign sources.

Due to structural changes, the percentage of employment in agriculture dropped in 2009 compared to 2005 by 4,3 percentage points (from 36,4% to 32,1%) and it increased in services (3,4 percentage points) and constructions (1,0 percentage points).

During 2009-2013, the percentage of the population employed in agriculture will decrease by approximately 16 percentage points, and that of services will notice an increase by 11,5 percentage points. The increase of employed population will be considered as being correlated to the dynamics of economic restructuring, the basic functional and productive structural changes of the economic and social system.

Human resources development, on a global labour force, was an important factor to be taken into consideration when these projections were made. The Romanian population will continue to decrease due to the decrease of birth rates, while active population will increase slightly, and the employment rate will grow to approximately 60% until 2013.

Romania's adhesion to the EU labour market will increase labour force mobility, attracting and losing workers. It is estimated that Romania will have a balanced position in this process. If in 2005 we have witnessed an accelerated decrease in the activity rate of the working population by 0,8 percentage points as compared to 2004, during 2006-2013 there will be an increase of it from 62,4% in 2005 to 64,3% in 2013, due to the fiscal policies, the creation of new sustainable and competitive jobs and of a balance between occupational flexibility and job security.

The number of employees will show an upward trend mainly due to the effect of the fiscal reform, after a decrease of 1,9% in 2005 compared to 2004. In 2013, the average number of employees is estimated to be at the level of 6085 people, up by 2,8% than in 2005. Significant increases in the number of employees are found in services and constructions and decreases in industry.

**Table no 3. Structure of employees by economic sectors, 2002-2013**

	<b>2002</b>	<b>2004</b>	<b>2005</b>	<b>2013</b>
<b>TOTAL</b>	100	100	100	100
<b>Agriculture</b>	3,5	3,2	3	3,6
<b>Industry</b>	39,4	38,4	37,3	35,1
<b>Constructions</b>	6,3	6,6	6,9	7,6
<b>Services</b>	50,8	51,8	52,8	53,7

*Source: National Commission for Prognosis*

It is noteworthy that in 2013 the non-wage employment population will be maintained at a constant level, meaning that the reduction of population employed in agriculture (exclusively employees) will be set off by the increase of non-wage employed population, such as employers, self-employed, etc. The phenomenon already exists and it is explained, on one hand, by the fact that agriculture modernization programmes lead to the reduction of population in this sector, and, on the other hand, the economic and social development have stimulated the expansion of liberal professions.

Unemployment rate was and will be one of the main concerns of the Romanian Government. In 2005, unemployment rate was 7,2%, 0,8% percentage points lower than in 2004. This decrease will also manifest in the future, a rate of approximately 6,0% being estimated for 2013. This decrease will be possible due to the more efficient implementation of employment policies.

## **5. Conclusions**

Labour market is characterised by continuously decreasing skilled labour force, as a result of massive migration, employment rates below the European averages, considering that the economy has not generated enough new jobs, and the people laid-off from industry found refuge in agriculture and not in the services sector, as it would be normal, an unemployment level that went on a downward trend towards figures considered acceptable, although largely masked (through early retirement, migration to abroad and agriculture), but which in the current situation is again increasing, due to the fact that many companies restrict or even cease their activity, global economic and financial imbalances which resulted in restricting consumption. Romania has had for a good while the advantage of skilled labour force, but its gradual loss has negative consequences on its development potential.

## **6. References**

- Pirciog S. (1996) *O politică activă pe piața muncii - îmbătutul cu apă rece*, Economistul, Anul VII, Nr. 729, februarie
- Răboacă G. (2000) *Procese și tendințe în sfera ocupării și șomajului. Analize comparative*, în seria Studii și cercetări economice, Centrul de informare și Documentare Economică, vol. 10-11-12
- Vorzsak M., Guț C. (2008) *Problems of unemployment in post-communist Romania*, The Journal of the Faculty of Economics - Economic Science, Universitatea Oradea, Vol. I



- Zaman C. (2007) *Inside the European Union: A diagnosis of the labour market and social protection system in Romania at the moment of integration*, Centre for Social and Economic Analyses, februarie 2007
- Comisia Națională de Prognoză, *Evoluția principalilor indicatori macroeconomici 2007-2013*, ww.cnp.ro
- \*\*\* INS, *Ocuparea și șomajul în 2009*, [www.INSSE.ro](http://www.INSSE.ro)
- \*\*\* Institutul Național de Statistică, *Comunicat de presă*, 12 martie 2011

# SOLUTIONS FOR MARKET DOMINANCE THROUGH COST LEADER STRATEGY

NEAMȚU Liviu ,

*Associate professor/Ph.D., Faculty of Economical Science and Business Administration/ Department of Management-Marketing-Economics, "Constantin Brancusi" University from Targu-Jiu, Targu-Jiu, Romania,*  
[professor.neamtu@yahoo.com](mailto:professor.neamtu@yahoo.com)

NEAMȚU Adina Claudia

*Professor/Ph.D., Faculty of Economical Science and Business Administration/ Department of Management-Marketing-Economics, "Constantin Brancusi" University from Targu-Jiu, Targu-Jiu, Romania,*  
[neamtual@yahoo.com](mailto:neamtual@yahoo.com)

**Abstract:** *In order to enter the markets, companies have various possibilities to establish the approach strategies through their prices and depending on their objectives. The global domination strategy at the level of costs is an excellent method of dominating the market through lower prices in comparison with competition ones. The paper emphasizes solutions for cost global domination and reveals the main phases and activities that successively help to permanently reduce the costs. We proposed a model for the strategy of cost leader based by simultaneous analyses about five factors whose confrontation will allow to determine one or several possible prices tested before choosing the final solution: legal constraints; enterprise objectives in the matter of price; demand; product characteristics; competition. In relation to the criteria of price setting, we propose four application variants of the cost leader policy: market cost leader, product cost leader, channel cost leader, field cost leader.*

**Key words:** strategy, cost, price, activities.

**JEL classification:** D, F, G, L, M, O

## 1. Introduction

The global domination strategy at the level of costs is an excellent method of dominating the market through lower prices in comparison with competition ones. For this, it is necessary that the firm has a large, stable market, be organized adequately and efficiently, has the advantages of experience in the field, promote a policy in which productive and logistic costs be permanently analyzed and optimized, supply options be directed towards using adequate materials and especially a permanent concern has to be maintained for increasing labour productivity (Jayachandran et al., 1999).

The cost domination strategy does not lack risks; a technological revolution that places competition on favourable positions is enough annihilating all the advantages resulting from the accumulated experience and adopted economic measures. The literature shows that this strategy has two major lines of action: costs and prices (Buell, 1984; Duro and Sandstrom, 1988; Kotler et al., 1998; Russu, 1999).

The main characteristic of the global cost domination strategy it focuses on the need to support a permanent technical and technological research in order to decrease any type of costs (Jayachandran et al., 1999). Entering the cost strategy also requires making important investments, in order to provide mass production together with optimization and simplification of the fabrication process with results in promoting the effect of accumulated experience and bone-stock. Adequate computer and communication system must be updated as appropriate to ensure internal efficiency and to work with supply and distribution sales partners. A cost leader strategy is primarily a volume strategy based on market development and adequate distribution even on internationalization, both at sales level and production level.

Organization implications of the cost domination strategy concerns: clear definition of duties and responsibilities and a management system based on correctly sized, realistic quantitative objectives. The management analysis and control system must be oriented towards the analysis of product value and cost audit.

A second course of action dominated the cost leader strategy is the pricing policy. The price is formed under the influence of numerous factors depending on evolution of the economic, technological, political and financial framework of the market. Among them are several key factors (Stigler, 1972):

- cost level and movement

- volume, structure and elasticity of demand and the ratio between demand and supply on products and groups of products;
- exchange rates fluctuation of the main currencies used as payment means;
- inflation characteristics and dynamics;
- commercial policies of the countries and groups of countries that hold powerful positions in international trade with various products and multilateral arrangements for regulating international markets;
- the policy of various states and groups of states and transnational companies in the matter of prices;
- climatic conditions in the main agricultural and food products areas.

In determining the price of a product, objective and subjective components have to be included, like (Neamțu, 2004; Neamțu and Neamțu, 2009): product cost price, whose level depends on the company's internal conditions, suppliers, distribution system, taxation policy; manifestation mode of demand, considering the size of the potential market existing at a certain price level along with consumers' sensitivity to price; competition and its price strategy both on internal and international market; regulations in the matter of price fixing and competition protection; as well as strategic options of the company.

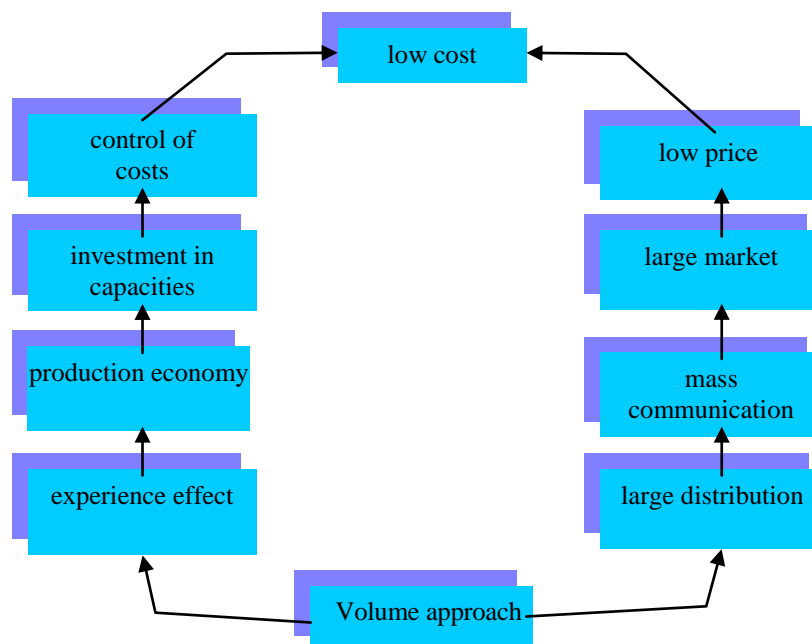
In establishing the price for a market, several answers to the following questions have to be considered (Jeannet and Hennessey, 2004):

- What price policy is representative in accordance with the position strategy and necessary sales margins?
- Can this price apply on this market?
- Money fluctuations can be a problem for the unit price strategy?
- Which is the company's price policy on the market, considering all the necessary factors?
- Which are the competition's prices in comparison with the ones practised by the company?

## 2. The cost and price management solutions to support a cost leader strategy

Before determining the action ways in a cost leader strategy we shall reveal the main phases and activities that successively help to permanently reduce the costs. Thus, costs control allow a low fabrication cost and selling prices decrease based on unit costs decrease providing therefore a larger market and even business internationalization among with bigger bone-stock that requires a policy of investing in high productive plants, determining factor in costs decrease. According to this reasoning is produced the virtual circle of cost global domination (figure 1) (Neamțu and Neamțu, 2009).

*Figure 1: Phases and activities characteristics to cost domination*

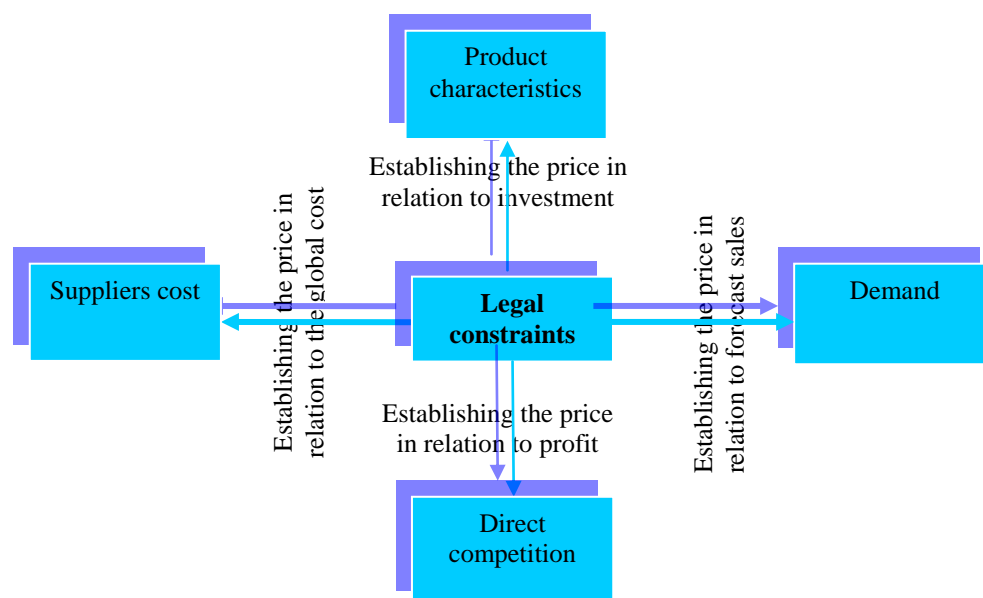


The price is the expression form of expenses or investments. Demand and competition are generally prompter to act to price alterations than in alterations of product images. Prices are the expression of a conception or policy with certain objectives that will be achieved through the decisions made in the field of prices. Such objectives can be: profit increase; investments profitability and their recovery at the planned term; entering a market and then maintaining and developing the position; resistance to competition or discouraging it.

Price formulation has to be accompanied by simultaneous analyses about five factors whose confrontation will allow to determine one or several possible prices tested before choosing the final solution (Cook, 1998). These five factors are: legal constraints; enterprise objectives in the matter of price; demand; product characteristics; competition.

If we take into consideration that the selling price has to reflect both the profitability of invested capital and the profit part owed to intermediaries or in other words commissions given to sellers depending on their turnover, there are a series of methods for selling price setting starting from costs, useful in choosing the most adequate price policy for a company. Figure 2 shows price setting model in relation to four basic elements: suppliers, demand, competing, product.

Figure 2: Price setting criteria



a) Price setting reported to suppliers: is based on determining the global cost of a product, fixed and variable, increased with a profit margin.

b) Price setting reported to product which establishes both the profitability that the invested capital to achieve the product and profit rate estimated from product sales and profit margin in absolute value.

c) Price setting reported to estimated demand that start from the value of the total profit for the entire produced quantity. If we take into consideration the critical point (break-even point) where the turnover equals total costs, therefore the profit is null and the company has set an objective within the terms of quantitative sells the ceiling price that allows to reach the critical point can be determined.

d) Price setting reported to direct competition it strictly takes into consideration the calculations concerning competitors' prices and different versions of price that can be used in the market..

Depending on the company's expenses coverage level and the contribution to the expected profitability, three types of prices that can be used in competition against other competitors::

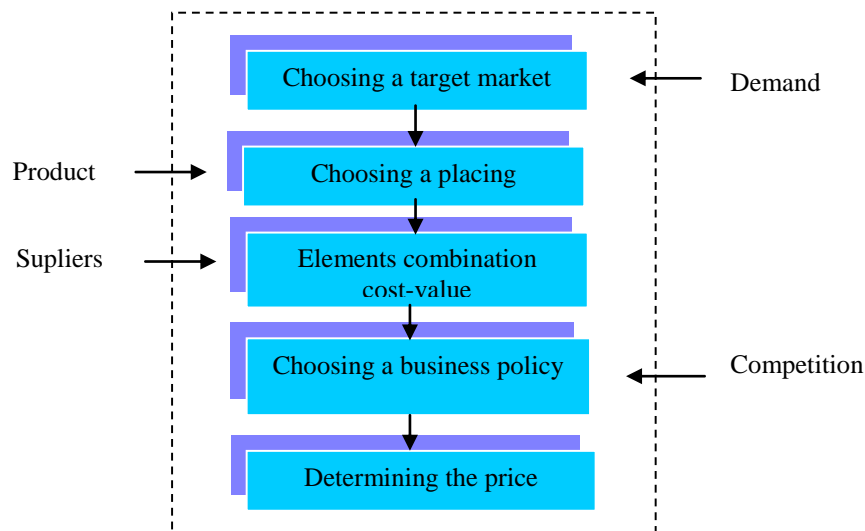
**I. limit price** which is equal with the direct costs of the product and is the lower limit below which we cannot go, the company accepting to sell at this price hoping to decrease the future costs as a result of an efficient use of production capacity ( $P_v = C_u$ );

**II. technical price**, called like this because it corresponds to the critical point and provides the recovery of the variable cost and fixed cost depending on the activity volume ( $P_v = C_u + C_f/Q$ );

**III. objective price** which allows to recover variable and fixed costs and achieving a profit.

It is interesting to note that price setting is studied depending on the mathematical models that integrate the influence of various market, environmental and company variables (figure 3).

Figure no. 3 Price setting phase



In a policy of cost leader, the price does not usually allow to cover the advertising expenses or selling agents that use clients' personal contact and these efforts can be taken over by intermediaries.

The introduction of new products that have increased characteristics and functionalities can create a more powerful attraction for buyers than the smaller price of simpler equivalent products provided by a company directed towards a cost leader policy. In the same meaning, a convincing advertising campaign or a powerful fidelity for a trademark can contribute to the acceptance of higher prices payment, making the volume policy inefficient (Nicolescu, 1996). While the seller's market turns into the buyer's market, clients become more and more interested in the other parameters of the product rather than in the price.

Price setting is made in relation to standard prices, average prices of the market. From case to case, market price comprises a series of product accessories or a series of services like installation, transport, etc or on the contrary it can refer only to the actual product (Olteanu, 2002). In a cost leader policy, the goal is that along with market selection, the average and minimal price of the market be established in relation to which the real possibilities of the company to follow this policy will be established.

Price occurs as a contact and harmonization element between the product and the environment it addresses to, between supply and demand.

Being an objective component of the product, price can be adapted to it to the requirements and exigencies of various market segments.

Strategic element, the price does not interfere with advertising, contributing to the recovery of the investments made in the field, and through its level it can replace some promotion efforts or can result in their increase due to the need to argue it.

The higher is a product price, the more will the buyer think that the product is of high quality.

At last, the price reflects also the distribution policy through the possibility it offers to open and maintain target channels through a differentiated reduction policy, to cover the costs of the distribution apparatus. All these correlations have to be integrated in the general business orientation.

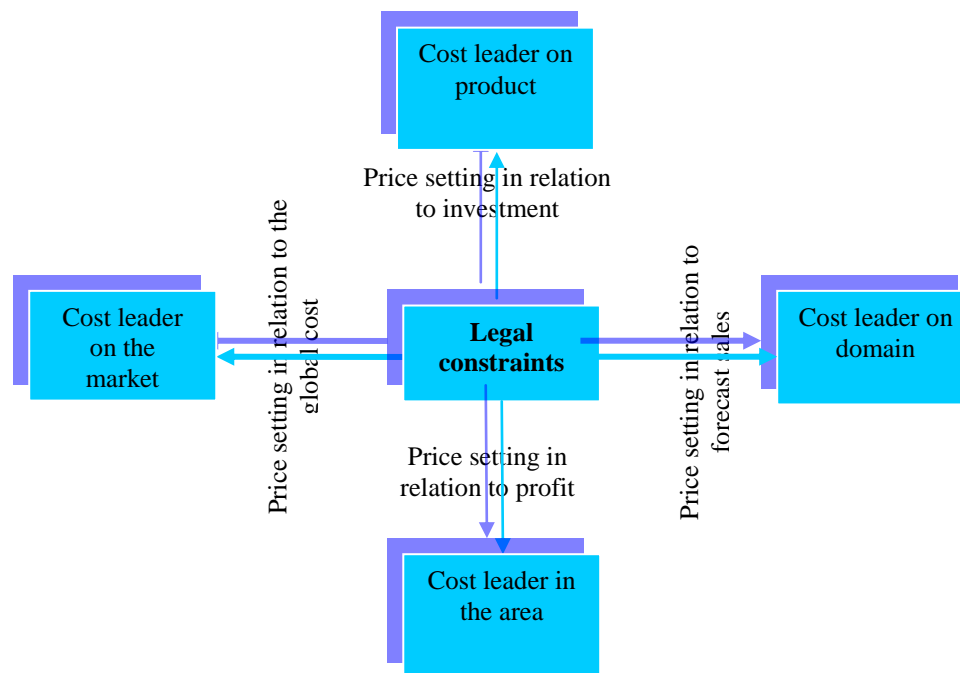
Price is a strategic variable, because it is the main criterion for production structuring and future allocation of resources as well as determining parameter of product and enterprise placing on the market and their economic future.

On price setting depend product accessibility to the client and the extent of the demand, market share and competitiveness, choosing the segment we are following and its behaviour, the nature of competition's reactions, profit and company's development. From these reasons, the cost leader policy has to be framed as a way of approaching businesses focusing mainly in price and on its ratio with costs evolution at the level of company's activities.

In conclusion, in relation to the criteria of price setting, the cost leader policy can have four variants of application: cost leader on the market, cost leader on product, cost leader on domain, cost leader in the

area (Figure no. 4). The company must choose one of four solutions to cost leader policy (figure 4), because dragging to a middle way does not lead to benefits for the organization.

Figure no. 4 Models of cost leader policy



Among the risks that threaten the good operation and use of the global cost domination strategy, we mention (Dundas and Richardson, 1980; Neamtu and Neamtu, 2009):

- market saturation; especially because the product is in decline and its modernization requires an emergency policy;
- technical ageing of productive plants; old plants are generally energy consuming and do not provide the necessary qualitative level, resulting in a lot of scrap;
- losing the competition advantage due to the technical progress made by the other competitors;
- newcomers from countries with cheap manpower;
- the risk of losing the technological innovation capacity to the disadvantage of cost domination;
- decreasing the power of negotiation with suppliers.

## 2. Offensive choices for market dominance

Offensive approach requires the company should try to have and maintain the initiative in terms of price compared to direct competition, forcing thus other competitors to react defensively.

Depending on prevailing available capabilities, the firm may engage in one of the following strategic cost leader to establish and maintain its competitive advantages (Russu, 1999; Neamtu and Neamtu, 2009):

a) *Frontal attack on the strengths of competing firms*, a strategy that is clearly bold and whose success will depend on the firm commitment and his competitive force in terms of costs and power response of competitors.

b) *Attack the weaknesses of competitors*, based on the concentration of resources and competitive force of the company to promote a competitive range of products with lower prices in areas where competitors have no competitive bidding. In such an offensive strategy, which have significantly higher chance of success than previous, the main lines of attack concerns, most commonly, the following weaknesses of other firms in the market:

- market segments that competitors have neglected or not have the necessary resources and skills to properly serve them;
- areas where competitors have a lower market segment and are not capable of sustained competitive effort;

c) *Frontal attack* performed on a broad front is based on a range of low prices in various areas of business activity while increasing R & D and the rate of product trade and improving performance that leading to significant cost reduction.

d) *Selective frontal attack* means selecting products that will be at the center of attack in the field of costs. This strategic option is often restricted to a range of very important product of the company. Selective frontal attack means the initiating company to provide similar products to the leader company of the market but at lower prices. Success of such an attack depend upon the relations price - cost - volume of the firm offer, in the sense that discounts reduces the profit margin and increases in sales compensate this reduction (Kotler, 1997).

e) *Simultaneous attack on several fronts*, which is a very aggressive strategy that relies on multiple initiatives to reduce prices, launched simultaneously in different activity areas of the company, so that competitors are surprised by the intensity and extension of the attack and be bound to defend simultaneously at different levels. Specific actions of this strategy are to reduce costs and gain new groups of buyers with specific needs while expanding covered market segment. Multiple fronts attack strategy must be sustained by a considerable level of resources that the firm to consume in its efforts to accede to the cost leader position in the market and to create substantial and lasting competitive advantages.

f) *"Guerrilla" type offensive* which consist of an attacking campaign with reduced prices for a defined time period and a range of products for which a more modest company can successfully compete other competitors. Range of products that will run the campaign must comply with its central core portfolio of products in order to have a market impact. This strategy of "harassment" is indicated for small companies lack the necessary resources and competitive force to engages in the previous types of strategies

### 3. Conclusions

In this context the strategy of global domination at cost is a great way to dominate the market with lower prices than the competition. This requires the firm to have a large and stable market, properly and efficiently organized in order to benefit from experience; to promote a policy that costs of production and logistics to be constantly reviewed and optimized; options supply to be directed to use appropriate materials; and must be maintained concern for productivity growth.

Minimum cost strategy is not without risks. To be efficient it takes to be a leader company in terms of cost, on a range of products or all its fields of activity. Two or more companies seeking to become leaders in cost can engage in fierce competition, which will result in lower profits up to a very low level.

Therefore, the company should have an advantage in terms of cost that can not easily be imitated, and also to keep up with new technologies that can lead to changes magnitude of costs. If these conditions are not met, competitors applying a policy of differentiation can seduce customers by offering products or services with superior characteristics.

Planning and operational programs will operationalize the overall strategy of the company, specifying the necessary details about how the company should act to implement cost leader strategy. Stating the functional programs that permits the understanding of the overall strategy by the majority of its constituents and clarification of those parts of the strategy covering specific functional areas.

### 4. References

- Buell, P.V. (1984) *Marketing-Management. A Strategic Planning Approach*. New York: Mc Graw-Hill Inc.
- Cook, K. (1998) *Planificarea strategică pentru întreprinderi mici*. București: Editura Teora.
- Dundas, K.N.M.; Richardson, P.R. (1980) Corporate strategy and the concept of market failure. *Strategic Management Journal*, 1 (2), p. 177–188.
- Duro, R.; Sandstrom, B. (1988) *Strategies guerieres en marketing*. Paris: Les editions d'organisation.
- Jayachandran, S.; Gimeno, J.; Varadarajan, P.R. (1999) Theory of multimarket competition: a synthesis and implications for marketing strategy. *Journal of Marketing*, 63 (3), p. 49–66.
- Jeannet, J.P.; Hennessey, H.D. (2004) *Global Marketing Strategies*. Boston: Houghton Mifflin.
- Kotler, Ph.; Armstrong, G.; Saunders, J.; Wong, V. (1998) *Principiile marketingului*. București: Teora.
- Kotler, Ph. (1997) *Managementul Marketingului*. București: Editura Teora.
- Neamțu, A.C. (2004) *Marketing*. București: Editura Economică.
- Neamțu, L.; Neamțu, A.C. (2009) *Management strategic. Principiile succesului*. Târgu-Jiu: Editura Academica Brâncuși.

- Nicolescu O. (coordonator) (1996) *Strategii manageriale de firmă*. București: Editura Economică.
- Olteanu, V. (2002) *Marketingul serviciilor*. București: Editura Uranus.
- Porter, M. (1985) *Competitive Advantage. Creating and Sustaining Superior Performance*. New York: The Free Press.
- Russu C. (1999) *Management strategic*. București: Editura All Beck.
- Siggelkow, N. (2003). Why focus? A study of intra-industry focus effects. *The Journal of Industrial Economics*, 51 (2), p. 121–150.
- Stigler G. (1972) *La Theorie des Prix*. Paris: Dunod.



# INFLUENCING FACTORS OF PRICE AND ASSOCIATED STRATEGIES

NEAMȚU Liviu

Associate professor/Ph.D., Faculty of Economical Science and Business Administration/ Department of Management-Marketing-Economics, "Constantin Brancusi" University from Targu-Jiu, Targu-Jiu, Romania, [professor.neamtu@yahoo.com](mailto:professor.neamtu@yahoo.com)

NEAMȚU Adina Claudia

Professor/Ph.D., Faculty of Economical Science and Business Administration/ Department of Management-Marketing-Economics, "Constantin Brancusi" University from Targu-Jiu, Targu-Jiu, Romania, [neamtual@yahoo.com](mailto:neamtual@yahoo.com)

**Abstract:** The price is an important element in product position; it is a means of sending signals to consumers about the nature and quality of the product. When, for a certain business environment, the demand curve is known in relation to market (competition) costs and prices, the firm can choose a pricing policy simultaneously with business strategy. This study synthesizes the key-factors occurring in choosing a business strategy and the game of price and cost on the market. As an approach to pricing policy was defined method of cost analysis based on which we can establish the opportunity of engaging in a business strategy with related pricing policy. In conclusion, companies have to establish first of all which are market constraints and their marketing objectives and the price strategy will be adopted depending on them.

**Key words:** pricing policy, cost, analysis, factors.

**JEL classification:** D, F, G, L, M, O

## 1. Introduction

The price is used as an active element in formulating the marketing strategy by companies being, as we all know, the only element of the marketing mixture that generates incomes. The price is an important element in product position, it is a means of sending signals to consumers about the nature and quality of the product. Price decisions at international level are usually located, because elements like the local demand, competitors, costs, exchange rates vary from a country to another.

In specialized literature there are three big categories that have influence over the price:

a) *Company related factors:* production costs, transport costs, indirect duties, costs of the distribution channels chosen by the company (Stigler, 1972; Buell, 1984; Kotler, 1997; Beju, 2000; Siggelkow, 2003). We also have to consider the price discounts provided to distributors in order to get access to a new market as well as distribution costs related to distribution channels length, the increase of every channel and logistic costs and efficiency. The smaller the acquisitions volume is, the more necessary is a longer distribution channel that comprises specialized intermediaries that apply higher increases and consequently distribution costs will be higher (Jayachandran et al., 1999).

b) *Market related factors:* incomes level, competition, consumer's culture, product life cycle (Stigler, 1972; Porter, 1985; Kotler et al., 1998). Countries that have high incomes usually have a smaller elasticity as far as price is concerned for strictly necessary goods like food, shelter and medical services, because they lack alternatives of natural economy that exist in countries with smaller incomes. The differences between the level of population incomes of various countries determine different prices for the same product on various markets (Jeannet and Hennessey, 2004).

c) *Environmental factors:* legal regulations of the market, inflation rates, control over prices, hidden subsidies, currency (Beju, 2000; Kotler et al., 1998; Jayachandran et al., 1999). Any time there are differences between the prices of a product on various markets there is the risk of parallel imports or grey markets. Price differences have to be at least 15% in order for products sold in a country at small prices to be exported towards other countries where their price is higher (Mercado et al., 2001).

## 2. Internal factors influencing business and profitability

Objective price or acceptable price is within a range whose superior limit is the maximal price that the client is willing to pay for a product and whose lower limit indicates an acceptable quality of the product. Psychological price determination is made as a result of investigations that comprise two questions:

below what level of the price, you think that the product is not of good quality?, over what level of the price, you think that the product is too expensive? (Neamțu, 2004)

Psychological price is an useful information for the company, used for fixing prices for consumers' products. We should mention that there is the risk of information irrelevancy with the help of investigations because the information concerns the purchase intentions of interviewed subjects, intentions that cannot be materialized.

Strategic orientations regarding the prices are the result of a permanent information activity and maximal responsibility. The substantiation and achievement of every variant has to be developed with the help of a clear and precise action, using various methods. The method of price setting based on the criterion of production costs plus a profit quote is and remains interesting within the current business context. (Beju, 2000)

They take into consideration the expenses made with products making and sale. In order to determine the point in which incomes are equal to total expenses depending on the price level, the rate of return is used (critical point method). For a product meant for selling on market, we can create the model from table 1 (*Costs and prices for a certain production level*), which renders the image the company has on the price practised depending on its own costs involved, considering a small number of products created (ten), with the possibility to calculate prices next, irrespective of the size of the series of created products, using the same standardized algorithm.

We can notice that while the production volume (Q) increases, variable and total costs also increase, only the fixed ones remaining constant. Marginal cost records a decrease at the beginning for every additional unit, and from a certain level (after the third product) it has an increase trend, explained through the action of the so-called law of decreasing return or decreasing marginal productivity of production factors according to which while a producer increases the quantity of production variable consumed factors (manpower, raw materials and materials, fuels etc.) in order to increase production, the return of successive factors decreases because a greater amount of variable factors is combined with a constant amount of fixed factors (CF). With every extra production factor, production can increase in a less and less extent.

Production increase under the conditions of production factors return decrease determines costs increase and causes a cost increase phenomenon.

In the graph from figure 1 (*Average and marginal costs*), we notice that a company can be in various cases by manufacturing a certain amount of products. We can say that profit is achieved for a certain minimal amount of products and to an amount of sold products, under the conditions of determining a price at least above the critical price, considered in the minimal curve CTM «(C(7,83))», established randomly for 105 money cost units (points C' and C'' on the axis).

In the break-even point, where the profit is zero (the fourth product), the selling price is equal with the total average cost (105 money units). Up to this point, the company records losses, and starts making profit from this point on.

We can see next that the profit of a producer becomes maximal for the production volume for which the selling price is identical or close to the marginal cost (product 8). On the axis, this balance price A' appears at the intersection of the price line with the marginal costs curve (between 7 and 8 physical units of product).

The stop or closing point for production is recorded when the price goes up to the level of average variable cost, at its minimal point and the average variable cost curve crosses the marginal cost curve (product no. 6) on «(B(6,51))» coordinate.

The critical point in which profit is zero and marginal costs are minimal «(A(4,30))» shows that beginning with the sale of the fifth product, the company starts to achieve profit, which will increase more and more, along with the sale of every additional product unit (eighth product) after which this profit will start to decrease, implicitly resulting in a decrease of the profit rate.

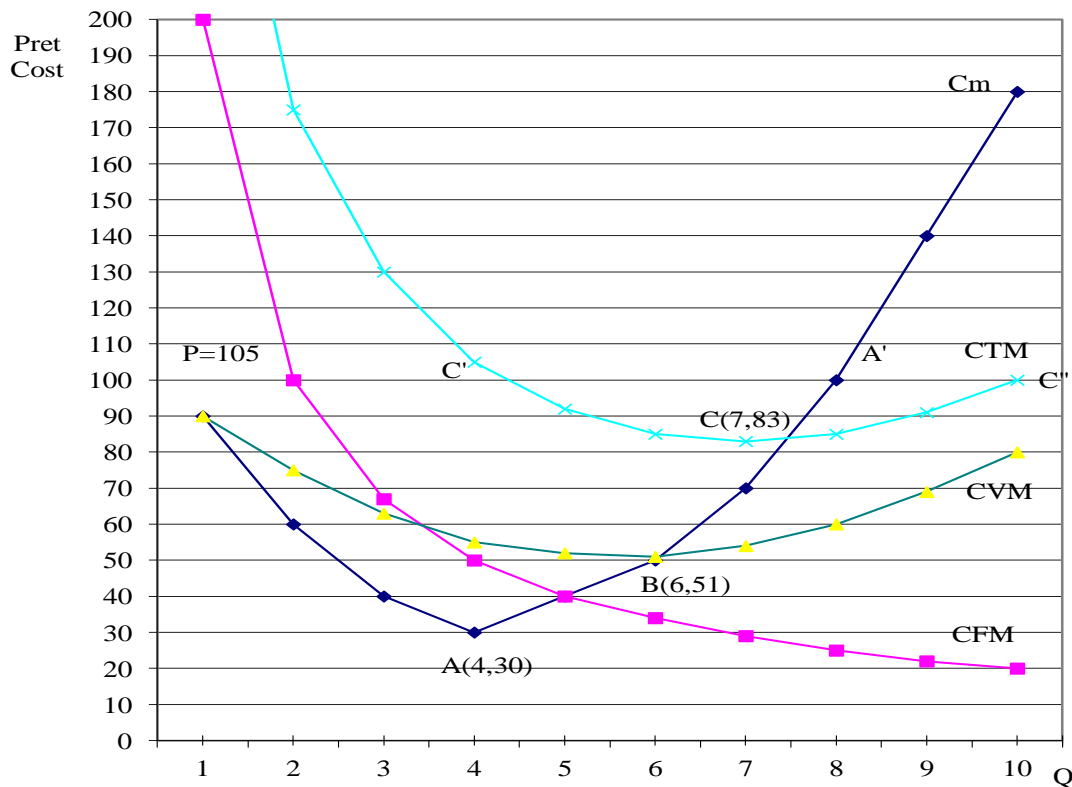
Costs analyzed from the point of view of the manufacturer are called *individual costs* and are used for determining the supply price through which these costs are covered and profit is achieved.

Manufacturers have to be concerned especially with reaching, through their individual costs, *balance costs*, recognized on the market, through price, based on the demand - supply ratio and which are considered optimal costs. Free prices under the conditions of real competition tend to be close to the balance price which in turn supposes a balance cost in relation to which *conventional cost* is determined, that is the cost with the lowest level.

Table 1: Costs and prices for a certain level of production

Activities volume	Fixed cost	Variable cost	Total cost	Marginal cost	Average unit costs			Marginal income	Total income	Profit (loss)	Rate profit %
Q	CF	CV	CT	Cm	CFM	CVM	CTM	Vm=P	VT	Pr	Rpr
1	2	3	4	5	6	7	8	9	10	11	12
			$4 = 2 + 3$		$6 = 2/1$	$7 = 3/1$	$8 = 4/1 = 6+7$		$10 = 9 \times 1$	$11 = 10 - 4$	$12 = 11/4$
1	200	90	290	90	200	90	290	105	105	-185	-63.7
2	200	150	350	60	100	75	175	105	210	-140	-40
3	200	190	390	40	67	63	130	105	315	-75	-19.2
<u>4</u>	200	220	420	30	50	55	105	105	420	0	0
5	200	260	460	40	40	52	92	105	525	65	14.1
<u>6</u>	200	310	510	50	34	51	85	105	630	120	23.5
<u>7</u>	200	380	580	70	29	54	83	105	735	155	26.7
<u>8</u>	200	480	680	100	25	60	85	105	840	160	23.5
9	200	620	820	140	22	69	91	105	945	125	15.2
10	200	800	1000	180	20	80	100	105	1050	50	4.7

**Figure 1: Average and marginal costs**



Conventional cost acts through individual cost decrease trend which, in turn creates a decrease of prices. We can say that direct price competition is always based on indirect cost competition (Beju, 2000).

Every company is interested in real dimensioning of production factors consumption, by the choice of optimal comparison variants of results with expenses and prices that cover them, on one hand expenses and on the other hand providing the achievement of a minimal profit (if not a big one).

Direct costs are based both on quantitative elements expressed through consumptions of resources, labour objects or product unit as well as value elements, expressed by prices or tariffs that measure material and living labour consumptions. Direct costs comprise raw materials and materials, technological fuels, direct salaries, sale expenses etc., and indirect expenses usually comprise general and consumption expenses of the company, indirect salaries, etc. (Stigler, 1972)

All these costs as a sum form the complete, total cost considered when determining the final, selling price and that provide the image of the latter size.

The premises for company's activities capitalization is reduced to the optimal dimensioning of production costs without affecting the quality of provided merchandise and services. If the selling price is considered by the final merchandise, service beneficiary as being fair in relation to quality, to its use it receives in return, then the final objective of the company is fulfilled, of achieving profit as a result of selling its creations expressed through supply. (Kotler et al., 1998)

### 3. Strategic solutions for the management of price based on market

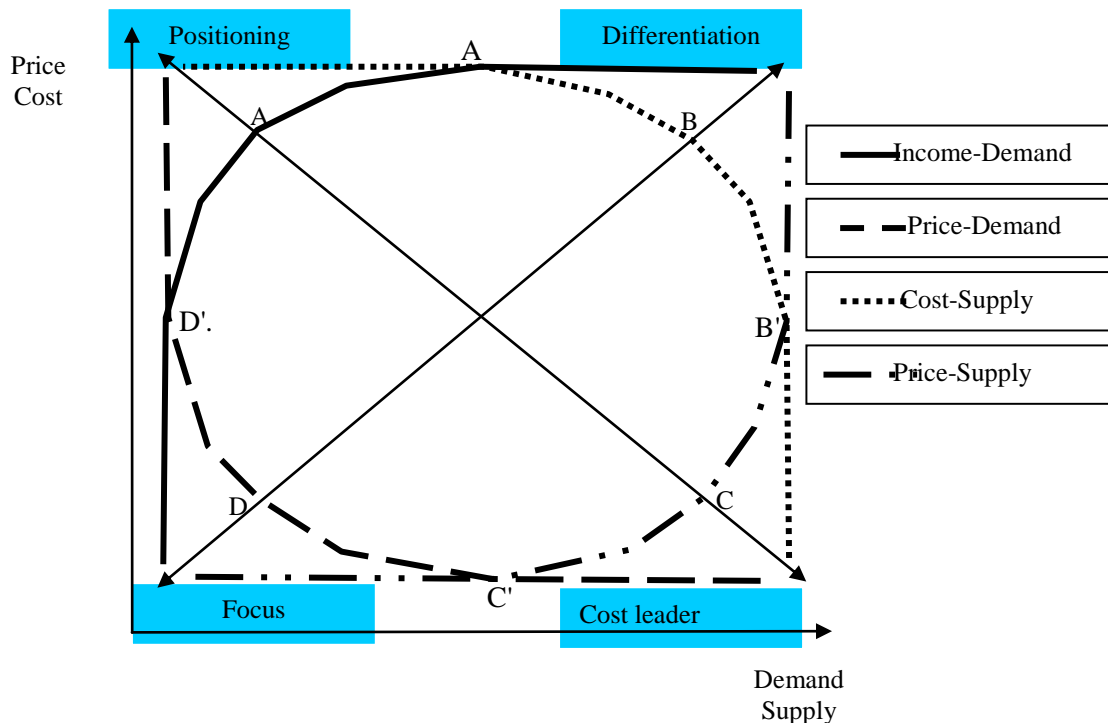
When, for a certain business environment, the demand curve is known in relation to market (competition) costs and prices, the firm can choose a pricing policy simultaneously with business strategy. In this manner, company will choose one of strategic solutions illustrated in Figure 1, determining if volume policy selection (cost leadership) is adequate or not. The figure no. 1) synthesizes the key-factors occurring in choosing a business strategy and the game of price and cost on the market. (Neamțu and Neamțu, 2009)

The level of costs determines the minimal price desired by producers, but buyers have often a reference cost different from that of the producer because of its relation to its own incomes.

There is therefore an objective cost determined by demand also called reference cost and a subjective cost as a result of the free game between competitors on a certain market. At the same cost value there will always be a discrepancy between demand and supply. Therefore, at a minimal cost the level of demand can be maximal, while the supply one will be minimal.

Therefore, producers are very rarely willing to fight within the segment of prices even if they are continuously concerned with the decrease of costs. Competition and replacement products provide an average value regarding the values of costs on the market.

*Figure 1: Criteria for choosing a business policy*



where:

- A - average value of market incomes;
- B - average production costs in the business field;
- C - balance price of the supply;
- D - balance price of the demand;
- A' - balance point incomes-costs;
- B' - balance point costs-prices;
- C' - balance point demand-supply;
- D' - balance point incomes-prices.

#### 4. Associated strategies. Price-Quality correlation

The fulfilment of clients' needs is estimated not only based on price, but also depending in the noticeable qualities of the product. The study of price-quality relation indicates that a high price is associated with higher quality.

This alignment policy to competition prices causes production and marketing production costs adjustment of the company at the level of market price. It is a reactive action that can cause problems when the volume of sales does not reach levels high enough to provide market input costs recovery. Although companies usually use price as an element of differentiation from competition products, there are cases when the company does not have any solution that to accept the market price.

This is the way to avoid the war of prices and at the same time the company can get a reasonable part of the market and an adequate profit. By means of these prices, the company can consolidate its position on the market on long-term.

The product has to be unique and there is the need for a market segment that wants to be able to pay a high price. Sony company used the strategy of high price in 1976, when it started to sell Betamax video recorders in the USA for a price of 1,295 dollars. Clients paid this price because they could watch a film or a show at any hour they wanted. (Kotler, 1997)

In this way, the company will produce for a part of the market and will be able to have a high price because of the limited supply and high value of the product. The success of these prices depends on the ability and speed of the competition's reaction. While the product is offered to several market segments and other similar products enter the market, the price will decrease gradually.

By establishing a high price, the company can develop a quality image. It is considered that the product will not have a safe future in other countries because there will be many competitors. Reynolds Pen Company, for instance, introduced many years ago, pens for a price of 12,5 dollars and then they were produced and sold by other companies for several cents. The advantage of this strategy is that it generates substantial profits, but it will draw competitors that practice lower prices. (Kotler, 1997)

Price strategies depending on market instability and demand heterogeneity want to valorise the differences occurring on the markets, depending on which it can have the following forms (Beju, 2000):

- conjuncture prices
- stable prices and benefit quotes
- differentiated prices.

*Conjuncture prices* are met in the case of powerfully affected merchandise by the demand and supply ratio. We generally follow the level of demand elasticity depending on the price, calculating the elasticity coefficient with the relationship:

$$E_p = \frac{C_1 - C_0}{C_0} : \frac{P_1 - P_0}{P_0} \quad (1)$$

where:

$C_1$  = demand at time 1;

$C_0$  = initial demand;

$P_1$  = price at time 1;

$P_0$  = initial price.

Depending on the variation of the external demand (big, small, inexistent) prices levels and alterations are determined catching also the optimal conjunctural moment.

*Prices and benefit quotas stabilization* have the purpose of absorbing the fluctuations caused by the market status on prices and their maintenance within controlled variation limits. This option is suitable for basic, non-processed products that sometimes exceed the possibilities of company. This is why we find some attempts at microeconomic level or within regional economic mechanisms.

*Differentiated prices* are based on market heterogeneity which allows to use differentiated prices depending on products or variants of the same product (for instance, new and old), higher prices on supported demand markets, or with partners, different prices depending on time (high price at the beginning of the season, then gradually decreasing).

Techniques used for fixing price levels are based on products comparison, being able to determine the export price in relation to the price per tone achieved by the competition for simple products, without sensitive differences of technical-functional parameters, or depending on the technical-functional parameters of actual products, using correction coefficients. Using the comparison principle, the company establishes the differences existing between the technical parameters of its own product or of one or several competing products.

In products where only one parameter adequately characterizes the product, the method of specific price is used which consists in calculating the unit price in relation to the basic parameter. The calculation relationship is based on the principle of simple proportionality, as follows:

$$P_r = P_c \left( 1 + \frac{N_n - N_c}{N_c} \right) \quad (2)$$

where:

$P_r$  = followed product price

$P_c$  = competing product price;

$N_n$  = followed product parameter;

$N_c$  = competing product parameter.

Often, the technical level and the price of a product are established by analyzing several parameters. Therefore, various variants can be considered, that of parameters that have equal importance for determining the correction coefficient or differentiated parameters.

If the product has a mass production, the method of standard prices will lead to lower prices fixing, because of unit fixed costs decrease. The method can also be used on technology based products. In this case the company is trying to use similarities rather than differences between the markets. The problem raised in the case of standard prices is that in the markets with high customs tariffs and other commercial barriers, the profit margin decreases.

Ideally, the standard price is established at a level that maximizes its acceptance by the consumer. But, practically the standard price is given by the lowest level necessary for the company to remain competitive on a large potential market.

The use of uneven prices, and even price strategies will become a solution for several companies. The solution is not to align prices, at their highest level (clients will be lost in markets with smaller incomes, that cannot afford to purchase the product at the high price) or at the lowest level (profits will be lost by offering the product at a smaller price to consumers that can afford to pay more), but rather to form a corridor of prices.

This corridor of prices will consider the elasticity different from that of the price from different countries and will try to maximize the potential profit per product unit. The narrower is the corridor of prices, the higher is the prices harmonization level. Unilever has forecast a price difference of 10% in Europe for its pan-European products. (Mercado et al., 2001)

Companies have to establish first of all which are their marketing objectives and the price strategy will be adopted depending on them: do they want to increase their market share at the level of the entire region or only at the level of a country? A study made with 25 American companies that operate in Europe showed that they adapted the prices in Europe 100% for consumption products and only to the extent of 60% prices for long-term products and 62% for industrial goods. (Mercado et al., 2001)

## 5. Conclusions

The price of a product is for the client both a cost that has to be compared with the advantages of product's purchase and a source of information.

Starting from the well-known principle, the quantity varies reversely proportional with the price, we can say that price decrease results in clients' expansion.

The main hypothesis that this approach is based on is that a small price will increase the sales, which can sometimes be verified, other times not. The basic idea is to establish a price low enough to conquer a part of the market fast. The starting premise is that by establishing a low price, a great amount of products will be sold, achieving a profit. Moreover, the demand has to be elastic or foreign buyers have to purchase goods only depending on price.

Within possible variants regarding production that can be achieved and related unit costs, the producer finds the decrease of the unit cost while the total production increases. The experience curve will be used by the producer as a strategic game - using the quantities of product depending and cost and benefit margin in relation to the free price formed on the market.

In this way, the enterprise has to choose the price and make an estimated quantity of products, in order to reach this price. Such a decision is based on careful examination of the market. This approach can be used in order to discourage competitors to enter the market. Low price can be successfully applied on short term, it tends to discourage competition, it can also decrease its part of the market, and profits can be low. It can also create the impression of a bad quality or that the tenderer does not want to involve on long term on that market. Moreover, prices can be considered dumping prices, which can draw counter measures from foreign markets governments.

Prices quantification on market differs from the moment of entering the market to establishing further prices but it has to objectively take into consideration the classic principle of covering production costs, at least to the critical point and costs occasioned by the payment and financing of the delivery process.

In order to enter the markets, companies have various possibilities to establish the approach strategies through their prices and depending on their objectives. Whichever the solution is: small prices, high

prices, unvarying prices, differentiated prices, the starting point is prices sizing realistically, starting from the cost elements and intrinsic qualities of the product, that is from price sizing starting with the calculation of the break-even point, beyond which any additional unit of newly created product can bring profit.

## 6. References

- Beju, V. (2000) *Prețuri*. București:Editura Economică.
- Buell, P.V. (1984) *Marketing-Management. A Strategic Planning Approach*. New York: Mc Graw-Hill Inc.
- Cook, K. (1998) *Planificarea strategică pentru întreprinderi mici*. București: Editura Teora.
- Dundas, K.N.M.; Richardson, P.R. (1980) Corporate strategy and the concept of market failure. *Strategic Management Journal*, 1 (2), p. 177–188.
- Duro, R.; Sandstrom, B. (1988) *Strategies guerieres en marketing*. Paris: Les editions d'organisation.
- Jayachandran, S.; Gimeno, J.; Varadarajan, P.R. (1999) Theory of multimarket competition: a synthesis and implications for marketing strategy. *Journal of Marketing*, 63 (3), p. 49–66.
- Jeannet, J.P.; Hennessey, H.D. (2004) *Global Marketing Strategies*. Boston: Houghton Mifflin.
- Kotler, Ph.; Armstrong, G.; Saunders, J.; Wong, V. (1998) *Principiile marketingului*. București: Teora.
- Kotler, Ph. (1997) *Managementul Marketingului*. București: Editura Teora.
- Mercado, S.; Welford, R.; Prescott, K. (2001) *European Business*. Boston: Prentice Hall.
- Neamțu, A.C. (2004) *Marketing*. București: Editura Economică.
- Neamțu, L.; Neamțu, A.C. (2009) *Management strategic. Principiile succesului*. Târgu-Jiu: Editura Academica Brâncuși.
- Nicolescu, O. (coordonator) (1996) *Strategii manageriale de firmă*. București: Editura Economică.
- Porter, M. (1985) *Competitive Advantage. Creating and Sustaining Superior Performance*. New York: The Free Press.
- Russu, C. (1999) *Management strategic*. București: Editura All Beck.
- Siggelkow, N. (2003). Why focus? A study of intra-industry focus effects. *The Journal of Industrial Economics*, 51 (2), p. 121–150.
- Stigler, G. (1972) *La Theorie des Prix*. Paris: Dunod.



# THE MAIN INDICATORS OF DEVELOPMENT OF MECHANIZED FARMING IN BUZAU COUNTY

**NECULA Raluca**

*PhD.Student, Faculty of Management, Economic Engineering in Agriculture and Rural Development ,  
University of Agricultural Sciences Veterinary Medicine Bucharest, Bucharest, Romania  
E-mail: raluca\_nec@yahoo.com*

**NECULA Diana**

*PhD.Student , Faculty of Management, Economic Engineering in Agriculture and Rural Development,  
University of Agricultural Sciences Veterinary Medicine Bucharest , Bucharest , Romania,  
E-mail: [anaiddiananec@yahoo.es](mailto:anaiddiananec@yahoo.es)*

**Abstract.** *By analyzing the evolution of the investments in agricultural machinery and tractors and other agricultural equipment with statistical indicators that characterize the evolution of the park ensures the informing upon agricultural mechanization level for taking the decisions more effective.  
The mechanization is manifested as the main factor of labor productivity growth and the growth factor of agricultural production because it offers opportunities to perform agricultural work in the best agrotechnical periods and at a high quality level ,also the mechanization is the crucial condition for the valorization of the other factors of production that enhances agricultural production (chemical fertilizers, irrigation , the agrobiological progress ).*

**Key words:** dynamics , quadratic regression , mecanisation

**JEL classification:** Q - Agricultural and Natural Resource Economics; Environmental and Ecological Economics; Q19 - Other

## 1. Introduction

The number of tractors and agricultural machinery in Romania decreased at the beginning of the transition period, then began to rise, but gradually. The park of tractors and combines for grain production was the most affected. The number of combines represented about 77% in 2005 compared to 1989 and 90% in 2010 compared to 2000. On the other hand, the number of tractors has increased slightly, and the arable land load per tractor improved, dropping from 62 ha in 1989 to 54 ha in 2005, arriving in 2010 at 52 ha.

However, the current fleet of agricultural machinery is largely outdated, which leads to large crop losses. According to the datas from international organizations, the technical equipment of agriculture is now and in future will be one of the essential elements in capitalizing the potential in this sector , including food security of humanity.(Neculai C.,2005)

FAO report in 1999 estimated that 30% of investment in agriculture in the developing countries will do to mechanization, which is absolutely necessary to increase agricultural production. Embodying this study World Bank Staff Working Papers no. 673 Agricultural Mechanisation (author Hans P. Biswanger) states that the speed of these investments and their realization are generated by the degree of endowment land and labor and the demand for agricultural products.

Based on these considerations, the National Institute of Agriculture Mechanization together with specialists from the Ministry of Agriculture, Food and Forestry conducted a comprehensive study on Romanian agriculture mechanization. The study includes a detailed radiography of technical equipment of the sector, proposing actions and providing technical solutions to optimize the agriculture.

To be noticed is that in countries such as Finland, France, Denmark, Norway, Belgium, Austria, there are more tractors than the number of people active in agriculture. This means that a farmer has more tractors, by different powers, which they use depending on the requirements of the agricultural works.

In terms of mechanization, in September 2009 is as follows: Romania has an endowment of tractors and agricultural machinery among the poorest in Europe, each tractor load is about 54 hectares, compared with the EU, where the average is of only 13 hectares. The internal fleet of tractors amounts to approximately 170000 units, of which about 80% are aged. Unlike the West, where tractors are considered old at 3000-4000 hours in Romania,the load on the tractor it reaches even over 12000 hours of use (Article - Chinezii încep producția de tractoare la Râșnov , 11 septembrie 2009).

A large load is found also at combine harvesters for agricultural crops, where we are in a unfavorable place 7, after Albania, Bulgaria, Greece, Macedonia, Czech Republic and Spain.

We have over 100 hectares/ combine, 20% higher load than the European average of 79 ha.

Unfortunately, in east and southeast areas where otherwise the share of agriculture is high, the charge is extremely high, reaching 84 hectares per tractor and for the combine more than 179 ha. And this makes difficult the agricultural work, with negative implications on agricultural production (Bogdan M. , 2003).

Also contributing to this is the fact that, especially in these areas, much of the technical park has exceeded the functioning time, leading to expensive maintenance default, the delay of works and high fuel consumption.

## 2. Material and Methods

In the next study we appealed to the use of statistical indicators showing the time evolution of the fleet of tractors and agricultural machinery: the average annual rate, the livestock values reported in percent, the quadratic regression.

Regarding the use of quadratic regression we used the approximation on the criterion of least squares to determine a function  $F(x)$  which does not pass through points of definition, but among them, so that the sum of squared deviations between the functions  $F(x)$  and  $f(x)$  at these points to be minimal. (Draghici M, 1974)

$$\sum (x_n - X_n)^2 = \text{Minimum}$$

By the application of the criterion of least squares, solving leads to the form of the quadratic regression:  $F(x) = a + bt + ct^2$ , and the system of linear equations whose solution provides the least squares minimization is:

$$na + b\sum t + c\sum t^2 = \sum x$$

$$a\sum t + b\sum t^2 + c\sum t^3 = \sum xt$$

$$a\sum t^2 + b\sum t^3 + c\sum t^4 = \sum xt^2 \quad \text{where:}$$

$f(x)$  - number of tractors and machinery,

$F(x)$  - the approximation of the number of tractors and machinery calculated by quadratic regression,

$t$  - years,

$n$  - number of years

The simulation model involves calculating the number of tractors and agricultural machinery for the next year and calculate the confidence intervals for the number simulated. The data used had as source: The Romanian Statistical Yearbook and the Statistical Yearbook of Buzau County.

## 3. Results and Discussions

After analyzing datas from table 1 we can note the following:

On the total country developments in investment in agricultural machinery for the period analyzed we can notice a dynamic trend oscillating slightly, only to certain categories. It is known an increase between the years 2000-2010, which at the end of the period investments in agricultural tractors have increased with 12.7 %, plows for tractors with 15.8 %, the mechanical cultivators had recorded an increase of 6 % and the mechanical drills with 20.1 %.

**Table 1. Technical and material dynamics during 2000-2010 per total country and in Buzau county (2000 = 100%)**

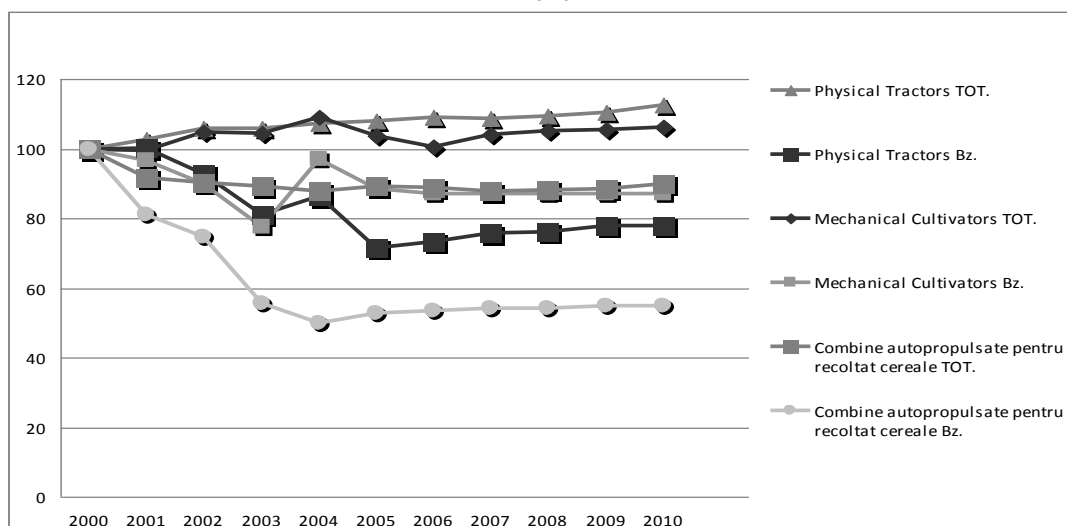
It. no.	Categories of tractors and agricultural machines	Areas	2000		2001	2005	2009	2010	Average Rhythm	Annual Rhythm
			No.	%						
1	Physical Tractors	TOT.	160053	100	102.6	108.1	110.5	112.7	107.2	1.21
	-	Bz.	4101	100	100.2	71.4	77.7	77.7	83.0	2.5
2	Plows for tractors	TOT.	123192	100	103.0	111.2	115.7	115.8	110.1	1.5
	-	Bz.	3130	100	95.3	99.0	95.1	95.1	93.9	-0.5
3	Mechanical Cultivators	TOT.	26212	100	99.3	103.6	105.6	106.0	103.8	0.6

	-	Bz.	710	100	96.5	88.5	87.0	87.0	89.5	-1.4
4	<b>Mechanical seed drills</b>	TOT.	57709	100	103.9	115.6	119.4	120.1	112.9	1.9
	-	Bz.	1423	100	95.5	77.3	80.9	80.9	84.7	-2.1
5	<b>Combines self-propelled grain harvesters</b>	TOT.	28084	100	91.8	89.2	88.7	90.0	90.2	-1.0
	-	Bz.	649	100	81.2	52.7	55.0	55.0	62.3	-5.8
6	<b>Combines self-propelled forage harvester</b>	TOT.	1655	100	76.6	43.7	47.1	48.2	57.3	-7.1
	-	Bz.	49	100	67.3	20.4	18.4	18.4	36.4	-15.6
7	<b>Vindrovere forage</b>	TOT.	1780	100	93.3	68.8	71.0	69.3	77.7	-3.6
	-	Bz.	69	100	79.7	84.1	84.1	84.1	81.2	-1.7

Source: (Own calculations based on data from Statistical Yearbook of Romania 2000-2010 and Statistical Yearbook of Buzau County 2000-2010, datas from the INS).

Following the evolution of the investments in other agricultural machinery we observe a decrease up to 50% of their number in 2010 compared to 2000 (at self-propelled Combine grain harvesters -10%, combines self-propelled forage harvester-51.8% and at Vindrovere forage - 21.7%) .

**Figure 1. The endowment with tractors and agricultural machinery during 2000-2010**



Source: (Own calculations based on data from Statistical Yearbook of Romania 2000-2010 and Statistical Yearbook of Buzau County 2000-2010, datas from the INS).

While at the entire country level we can see some growth, in terms of the endowment with agricultural machinery, in the dynamic of the Buzau county we observe a downward trend in all categories of tractors and agricultural machinery analyzed: agricultural tractors decrease in 2010 compared to 2000 with 22.3%, cultivators and mechanical drills reach a total of 13% and 19.1% decrease, the most drastic decline is suffered by investments in self-propelled combine grain harvesters, reaching in 2010 a total of 98.6% lower than in 2000 .

**Table 2. The average charge on the tractor and on combine cereal, on total country and in Buzau county (ha / tractor or machinery)**

Year	Physical tractors		Combine grains	
	Total	Buzau	Total	Buzau

<b>2000</b>	58.61	62.57	201.37	275.26
<b>2001</b>	57.25	62.62	244.14	362.03
<b>2002</b>	55.53	67.56	238.52	383.72
<b>2003</b>	55.65	77.46	221.25	475.13
<b>2004</b>	54.84	72.6	254.14	614.06
<b>2005</b>	54.44	88.03	234.11	504.86
<b>2006</b>	54.05	85.8	204.78	490.97
<b>2007</b>	54.16	83.01	208.03	467.36
<b>2008</b>	53.87	82.92	210.37	605.87
<b>2009</b>	53.28	81.16	212.15	507.88
<b>2010</b>	52.12	81.16	199.35	489.3
<b>Normal charge for Romania</b>	23-35		175-200	

Source: (Own calculations based on data from Statistical Yearbook of Romania 2000-2010 and Statistical Yearbook of Buzau County 2000-2010, datas from the INS).

Increasing the number of tractors during 2000 - 2010, has reduced workload on the tractor, 52.12 hectares/tractor of arable land in 2010 compared to 58.61 in 2000 (Table 2). However, the value of this indicator remains high above normal parameters for Romania's current conditions (25-35 ha / tractor). Regarding the charge on the combine grains, we can see a drop in ha / combine in 2010 compared to 2000, respectively from 201.37 to 199.35 ha ha.

Analysing the data in Table 1, we could consider that the charge - ha / combine would have to increase due to their number that has declined but we find a decrease on the load - ha / combine and this decrease is due to the reduction of the surfaces cultivated with grain cereals (in 2000 the surface of grains was 5655182 ha in 2010 decreased by a factor of 5040646 ha).

**Table No. 3. The synthesis of the endowments of park tractors and agricultural machinery in the county of Buzau.**

	<b>Tractors</b>		<b>Plows</b>		<b>Combines</b>		<b>Drills</b>	
<b>Anul</b>	f(x)(nr)	F(x)(nr)	f(x)(nr)	F(x)(nr)	f(x)(nr)	F(x)(nr)	f(x)(nr)	F(x)(nr)
<b>2000</b>	4101	4271.44	3130	3030.44	649	639	1423	1447.22
<b>2001</b>	4109	3948.37	2984	2950.48	527	539	1359	1351.18
<b>2002</b>	3810	3677.06	2786	2893.05	484	457	1350	1271.82
<b>2003</b>	3327	3457.52	2575	2858.15	361	395	1105	1209.12
<b>2004</b>	3549	3289.74	2867	2845.78	323	351	1247	1163.08
<b>2005</b>	2927	3173.72	3099	2855.93	342	326	1100	1133.72
<b>2006</b>	3004	3109.46	2978	2888.62	347	320	1101	1121.02
<b>2007</b>	3105	3096.97	2978	2943.83	352	332	1121	1124.99
<b>2008</b>	3127	3136.24	2978	3021.57	352	364	1151	1145.62
<b>2009</b>	3187	3227.28	2978	3121.84	357	415	1151	1182.92
<b>2010</b>	3187	3370.07	2978	3244.63	357	484	1151	1236.89
<b>2011</b>		3564.63		3389.96		572		1307.53

Source: ( Own calculations based on data from Statistical Yearbook of Romania 2000-2010 and Statistical Yearbook of Buzau County 2000-2010, datas from the INS).

Based on data from Table 1, we performed an approximation model based on the quadratic regression to a time period of 11 years, respectively 2000-2010, for the evolution of the number of tractors, plows, cultivators and drills by the type of regression equation:  $F(x) = a + bt + ct^2$ .

After solving it, the result has the following functions  $F(x)$ :

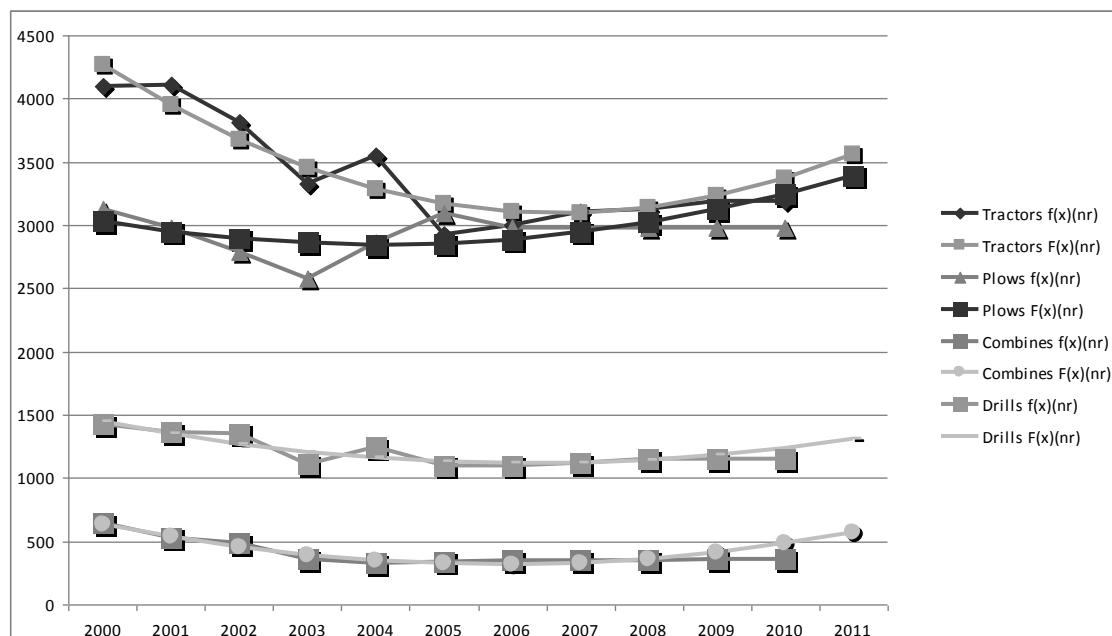
- at tractoars  $F(x) = 4646.26 + (-400.71)t + 25.88t^2$
- at plows  $F(x) = 3132.93 + (-113.75)t + 11.26t^2$
- at combines  $F(x) = 758.60 + (-128.77)t + 9.44t^2$
- la drills  $F(x) = 1559.92 + (-121.04)t + 8.33t^2$

Based on these equations we simulated the evolution of mechanical resources for 2011.

The regression equation shows a decrease in the number of tractors and agricultural machinery until 2006-2007, with an increase in the next three years, however insufficient to reach more than 7400 tractors required to have a load comparable to the normal in Romania, of 25-35 ha / tractor and the necessary number of combines over 1000 , for the surface cultivated with cereals(176,679 ha).

For the year 2011 (simulation model), the categories studied present a trend of slightly increasing their number, which could show an improvement of the technical and material base in Buzau County in coming years.

**Figure 2. The synthesis of the endowments of park tractors and agricultural machinery in the county of Buzau.**



Source: (Own calculations based on data from Statistical Yearbook of Romania 2000-2010 and Statistical Yearbook of Buzau County 2000-2010, datas from the INS).

#### 4. Conclusions

One of the main problems of the present stage of development of society is to increase agricultural production with minimum expenditures of labor and means. Opportunity and quality of their processes require mechanization – a high performance factor of productive work for growing. For this purpose , it requires a large number of agricultural machinery and tools, with which may make the execution of technological operations in accordance with the agrotechnical requirements .

The major problems of agriculture in Romania are: lack of major investment in agriculture (not because of lack of funds for financing, but rather the difficulty of accessing them), fragmentation of land, property disputes and poor technology.

In an agriculture under technical and social restructuring, as shown in the present Romanian agriculture, increasing technical equipping depends mainly on the orientation of public policy to investment activity (the amount of budgetary resources and financing credit guarantee etc..), and the possibility of accumulation and credit to farmers.

Romania has an endowment of tractors and agricultural machinery among the poorest in Europe, each tractor load is about 54 hectares, compared with the EU, where the average is only at 13 hectares. Internal fleet tractors amounts to approximately 170000 units, of which about 80% are aged. Unlike the West, where tractors are considered old at 3000-4000 hours in Romania the load on the tractor reaches even over 12000 hours of use.

The regression equation shows a decrease in the number of tractors and agricultural machinery until 2006-2007, with an increase in the next three years.

To reach the number of over 7400 tractors required to have a load comparable to the normal in Romania, of 25-35 ha / tractor and necessary of combines over 1000 it is required to make a strong investment in tractors and agricultural machinery.

#### 5. Acknowledgements

This article was developed under the project “Doctoral scholarships to increase the quality of training young researchers in the field of agronomy and veterinary medicine” (contract POSDRU/88/1.5/S/52614), project cofinanced from European Social Fund by Human Resources Development Operational Programme 2007-2013 and coordinated by the University of Agronomic Sciences and Veterinary Medicine Bucharest..

## 6. References

- Bogdan M , (2003) , *Dotarea tehnica, prioritate in agricultura* , *Univers Ingineresc nr.: 1/2003* (289), available at [http://www.agir.ro/univers-ingineresc/numar-1-2003/dotarea-tehnica-prioritate-in-agricultura\\_10.html](http://www.agir.ro/univers-ingineresc/numar-1-2003/dotarea-tehnica-prioritate-in-agricultura_10.html)
- Chinezii încep producția de tractoare la Râșnov, (2009), available at [http://www.standard.money.ro/articol\\_106293/chinezii\\_incep\\_productia\\_de\\_tractoare\\_la\\_rasnov.html](http://www.standard.money.ro/articol_106293/chinezii_incep_productia_de_tractoare_la_rasnov.html)
- Drăghici M. , (1974), *Utilizarea funcțiilor de productie în agricultură*, Teza de doctorat , IANB, Biblioteca USAMV Bucuresti
- *Comunicat De Presă, Nr.136 din 30 iunie 2011 , Rezultatele provizorii ale Recensământului General Agricol 2010* , available at [http://www.insse.ro/cms/files/RGA2010/comunicate/RGA2010\\_data%20provizorii.pdf](http://www.insse.ro/cms/files/RGA2010/comunicate/RGA2010_data%20provizorii.pdf)
- Hans P. ,(1999), World Bank Staff Working Papers nr. 673 Agricultural Mechanisation
- Necula C.,(2005), *Investitiile in agricultura*, available at , <http://www.fermierul.ro/modules.php?name=News&file=article&sid=993>
- \*\*\*INS, Anuarul Statistic al României , (2000- 2010)
- [www.insse.ro](http://www.insse.ro) , date preluate pentru anul 2010

# KNOWLEDGE MANAGEMENT FOR SMEs IN THE KNOWLEDGE-BASED ECONOMY

**NIKOLOVA Elena**

*Teaching assistant, Ph.D. student, Faculty of Economics, Department of management,  
“Goce Delcev” University, Stip, Macedonia, elena.nikolova@ugd.edu.mk*

**FOTOV Risto**

*Professor, Ph.D., Faculty of Economics, Department of finance,  
“Goce Delcev” University, Stip, Macedonia, risto.fotov@ugd.edu.mk*

**SAMONIKOV Marija Gogova**

*Teaching assistant, Ph.D. student, Faculty of Economics, Department of finance,  
“Goce Delcev” University, Stip, Macedonia, marija.gogova@ugd.edu.mk*

**Abstract:***In the knowledge-based economy firms are faced with much more capricious and diverse consumer preferences than ever. These consumers are increasingly interested in status, reputation, brand names, design, satisfaction, and post-sales service. Also, life span of products and services is shortened. In general, the advance of information technology and the advent of knowledge-based economy as the result of IT make the business environment for the average entrepreneur more complex. Knowledge can be used to reduce these complexities. The aim of this paper is to point out that knowledge is the factor that allows entrepreneurs to distinguish themselves from their competitors. Knowledge is the means for SMEs to overcome poor business environment and change the complex business environment to be manageable. The main research goal of this paper is to form and present a model for knowledge management which would help SMEs to be able to interpret the environment complexity and extract implications from that. The last is actually the expected result: the application of the model should stimulate building competitive advantage and support the firm's competitive position.*

**Key words:** knowledge management, SMEs, model, competitive advantage

**JEL Classification:** L20, D83

## 1. Introduction

Labor, land and capital had been the most important factors of production in the economy system for the last two centuries. Knowledge, education and intellectual capital were treated as exogenous variables that existed outside the system itself. Several economists (among who Romer(1986), Lucas (1988) Barro and Sala-i-Martin (1995)) have proposed a new model that included knowledge (or technology) as an intrinsic part of the economy system to explain the cause of long-term growth with which traditional economic models had difficulty. They suggested that knowledge became the fourth factor of production in leading economies.

The features of this endogenous growth theory are presented as follows. First, knowledge is the basic form of capital. Economic growth is driven by the accumulation of knowledge. Secondly, new technological developments can create technical platforms for further innovations, and this technical platform plays a key role of driving economic growth. Thirdly, technology can improve the return on investment to the extent that could not be attained only with labor and material resources, which leads to increasing marginal rate of returns on technological investment. Lastly, contrary to traditional economy, investment and technology make each other more valuable, which leads to increasing a country's growth rate permanently. An investment on R&D for technological innovation provides an opportunity that can enjoy the returns from monopoly.

A knowledge-based economy is one in which the above-mentioned features are revealed distinctly. The term “knowledge-based economy” results from the full recognition of the role of knowledge in economic growth. In a knowledge-based economy, the generation and exploitation of knowledge play the predominant role in the creation of wealth. Many advanced nations such as the US and OECD countries are more strongly dependent on the use of knowledge than ever before. Output and employment are expanding the most rapidly in high-technology industries like computers, electronics and information technology. Knowledge-intensive service industries such as education, communications and financial services are growing even faster as well. Those countries have experienced that the share of high-technology sector in GDP has been more than doubled over the past decade. The employment is growing in high-technology sector as well as knowledge-intensive service sector. Indeed, nonproduction or knowledge workers are in most demand in a wide range of activities from computer technician, architect

to financial specialist. In advanced economies such as the US, more than 60 percent of workers are knowledge workers.

With the advent of information and communication technologies like the Internet, manufacturers and consumers can now move around any market in the world. Consumers can inspect the prices offered by all vendors over the world for any product while manufacturers can sell their products at the world market with unlimited size. This is the phenomenon called “globalization”. Globalization is facilitated by the knowledge and technology while globalization works as the main driver of the emerging knowledge-based economy. Competition is fostered by the increasing size of the market opened up by globalization. Products with a high knowledge component generate higher returns and a greater growth potential in the global market. Knowledge and technology spreads more quickly, but products and processes can be swiftly imitated and competitive advantage can be swiftly eroded as well. A firm (or country) that wants to maintain its competitive position must be able to innovate even more quickly than its competitors.

## 2. Knowledge variants

Knowledge can certainly not be assumed to be equal to data. Above all, knowledge cannot be considered equal to information. Knowledge can primarily be described as something that makes both data and information manageable and meaningful. Knowledge can be classified into different types which are necessary to understand the principles of the knowledge-based economy. The knowledge variants are: know-what, know-why, know-how and know-who.

Knowledge is a much broader concept than information which is generally related to the “know-what” and “know-why” components of knowledge. These are the *explicit knowledge* that can be expressed through language. Thus, the explicit knowledge is relatively easy to codify and transfer to others. Other types of knowledge – particularly know-how and know-who – are *tacit knowledge* that is acquired mainly by experience and are more difficult to codify, measure and transmit.

1) **Know-what** refers to knowledge about “facts”. Answers to such questions as “Which is the revenue of 2001?”, “How many employees does your company employ?” are examples of this kind of knowledge. Here, knowledge is close to what is normally called information. In dealing with some complicated matters, experts like lawyers and analysts must have a lot of know-what (information) to perform a specific job.

2) **Know-why** refers to scientific knowledge of the principles and laws of nature. This kind of knowledge underlies development of technology, products or processes in industrial area. The acquisition of know-why is accomplished in specialized organizations such as research laboratories. To get access to this kind of knowledge, firms have to interact with these organizations either through employing trained specialists or through purchasing necessary knowledge and sponsoring joint activities.

3) **Know-how** refers to skills or the capability to do something. Businessmen judging market prospects for a new product or a personnel manager selecting and training staff have to use their know-how. The same is true for the skilled worker operating complicated machines. Know-how is typically a kind of knowledge developed from experiences and kept within a specific individual or a specific firm. This kind of knowledge is hard to codify in language. A firm may establish industrial networks to share and combine elements of know-how or adopt out-sourcing to efficiently utilize others’ know-how.

4) **Know-who** refers to information about who knows what and who knows how to do what. It involves the formation of special social connections, which make it possible to get access to experts and use their knowledge efficiently. Know-who is important in economies where information is widely dispersed and imbalanced because of a highly developed division of work forces and a rapid change (or an advance) of technology.

While know-what and know-why can be obtained through reading books, attending lectures and accessing databases, the other two kinds of knowledge are rooted primarily in practical experience. Know-how will typically be learned in situations where an apprentice follows a master and inherits know-how from a master. Know-who can be earned in social practice and sometimes in specialized educational environments. One reason why firms engage in basic research is to acquire access to networks of academic experts crucial for enhancing their innovative capability. Know-who is socially embedded knowledge, which cannot easily be transferred through formal channels of information.

The knowledge-based economy is characterized by the need for continuous learning of both codified information and the competencies to use this information. As access to information becomes easier and less expensive, the skills and competencies relating to the selection and efficient use of



information become more crucial. Tacit knowledge in the form of skills needed to handle explicit knowledge is more important than ever in labor markets. Codified knowledge might be considered as the material to be transformed, and tacit knowledge, particularly know-how, as the tool for handling this material. Capabilities for selecting relevant and disregarding irrelevant information, recognizing patterns in information, interpreting and decoding information as well as learning new and discarding old skills are in increasing demand.

The accumulation of tacit knowledge needed to derive maximum benefit from explicit knowledge codified through information technologies can only be done through learning. Without investments in both explicit knowledge and tacit skill development, informational constraints may be a significant factor degrading the allocation efficiency of market economies. Workers will require both formal education and the ability to acquire and apply new theoretical and analytical knowledge; they will increasingly be paid for their explicit and tacit knowledge skills rather than for manual work. Education will be the center of the knowledge-based economy and learning the tool of individual and organizational advancement.

This process of learning is more than just acquiring formal education. In the knowledge-based economy “learning-by-doing” is paramount. A fundamental aspect of learning is the transformation of tacit into explicit knowledge and the movement back to practice where new kinds of tacit knowledge are developed. Training and learning in non-formal settings, increasingly possible due to information technologies, are more common. Firms themselves face the need to become learning organizations, continuously adapting management, organization and skills to accommodate new technologies. They are also joined in networks, where interactive learning involving producers and users in experimentation and exchange of information is the driver of innovation.

### 3. Knowledge management for SMEs

It is necessary to interpret “knowledge” from the firm’s perspective of enhancing its competitive advantage. Firms constantly make decisions on various business activities and try to operate efficiently and effectively to make profit. In this context, knowledge is the factor that is useful for business decision making and business operation. Then, knowledge can be defined here as a collection of facts, know-how, patterns and systems that are embedded in individuals or the organization itself, which can be utilized in the process of decision making and business operation. Table 1 lists the specific knowledge that a firm possesses at both organizational and individual level.

**Table 1: Forms of knowledge within a firm**

	<b>Organizational knowledge</b>	<b>Individual knowledge</b>
<b>Facts</b>	Brand image Degree of customer satisfaction Patent Database of customers Communication infrastructure	Expert knowledge General knowledge for operation Foreign language
<b>Know-how</b>	Experience for FDI New product development skills Design skills Skills for financial management Skills for risk management Skills for cost management Skills for outsourcing	Expert knowledge General knowledge for operation Foreign language
<b>Pattern</b>	Meeting style (Speed meeting) Decision making style Operational process	
<b>Institution</b>	Evaluation system Welfare system Firm culture, vision, mission	

Source: Malhotra, Y., “Knowledge Management and New Organization Forms: A Framework for Business Model Innovation”, *Information Resources Management Journal*, 2000, 3-15p.

Facts include know-what and know-why variants of knowledge that are obtained from experience and learning. Know-how is the firm’s specific production technology or management skills. Pattern implies internal process of doing jobs while institution refers to company’s by-law, rules and

organizational culture. Knowledge that is firm specific is hard to transfer, imitate and trade and its value can be vastly reduced when it is applied outside the firm.

It is important that an entrepreneur should utilize accumulated knowledge in an organization and individuals to contribute to firm's performance. Only firms solidifying and sustaining competitive power can survive, develop and grow. Knowledge management is recognized as total means to improve firm's performance by applying it to production, marketing, research & development, personnel, planning and innovation. Thus, the vision of knowledge management is to improve firm's competitive position or to maintain the current. Knowledge management is the management of knowledge assets within an organization to enhance the firm's competitive advantage by steering the product leadership, operational excellence and customer intimacy.

The resource-based theory suggests that the firm's asset can be a source of competitive advantage when it is scarce, hard to imitate and hard to substitute. The knowledge assets retained within a firm satisfy these features of a source of competitive advantage. A firm cannot have the same knowledge as the others' because different firms have different human and knowledge resources. Also, a firm cannot imitate other's knowledge because knowledge is accumulated as the result of experience and investment over the long-time period.

#### 4. The elements of the knowledge management model

The presented knowledge management model consists of five elements: objective, strategy, knowledge assets, knowledge activities and knowledge infrastructure. These are the knowledge management domains in which an entrepreneur can effectively target himself.

An entrepreneur moves around these domains by performing knowledge activity management and knowledge asset management in particular.

**Table 2: Knowledge activity management and knowledge asset management**

	<b>Knowledge Activity Management</b>	<b>Knowledge Asset Management</b>
<b>Input</b>	Knowledge Infrastructure	Knowledge Assets
<b>Process</b>	Creation, Sharing, Accumulation, Learning	Product Leadership, Operational Excellence, Customer Intimacy
<b>Output</b>	Improvement of competitiveness of firm's knowledge	Improvement of firm's competitive advantage

Source: Davenport, T.H., Jarvenpaa, S.J.; and Beers, M.C. "Improving Knowledge Work Processes", *Sloan Management Review*, 1996, 53-65.

The knowledge activity management is to improve competitiveness of knowledge assets by efficiently managing activities such as knowledge creation, knowledge sharing, knowledge transfer and knowledge learning through knowledge infrastructure which is formed by organization, human capital and information technology. Knowledge asset management improves firm's competitive advantage by utilizing knowledge assets to achieve product leadership, operational excellence and customer intimacy. The success of knowledge management depends upon how well these two processes, knowledge activity management and knowledge asset management, are harmoniously performed.

##### 4.1 Objective

The objective of knowledge management is not to seek or create knowledge itself, but to improve firm's overall competitive advantage by utilizing firm's knowledge. In this sense, the requisites for competitive advantage are sustainable competence, visible competence and win-win competence. These three requisites imply that the competitive advantage is not temporary or impulse but continuous and can be assessed by visible criteria like increased sales or improvement in the firm's image.

##### 4.2 Strategy

In general, product leadership, operational excellence or customer intimacy assure the firm's competitive advantage. It is not unusual that a firm is not able to pursue all these three strategies at the same time due to limited operational resources. The entrepreneur should select one of these three

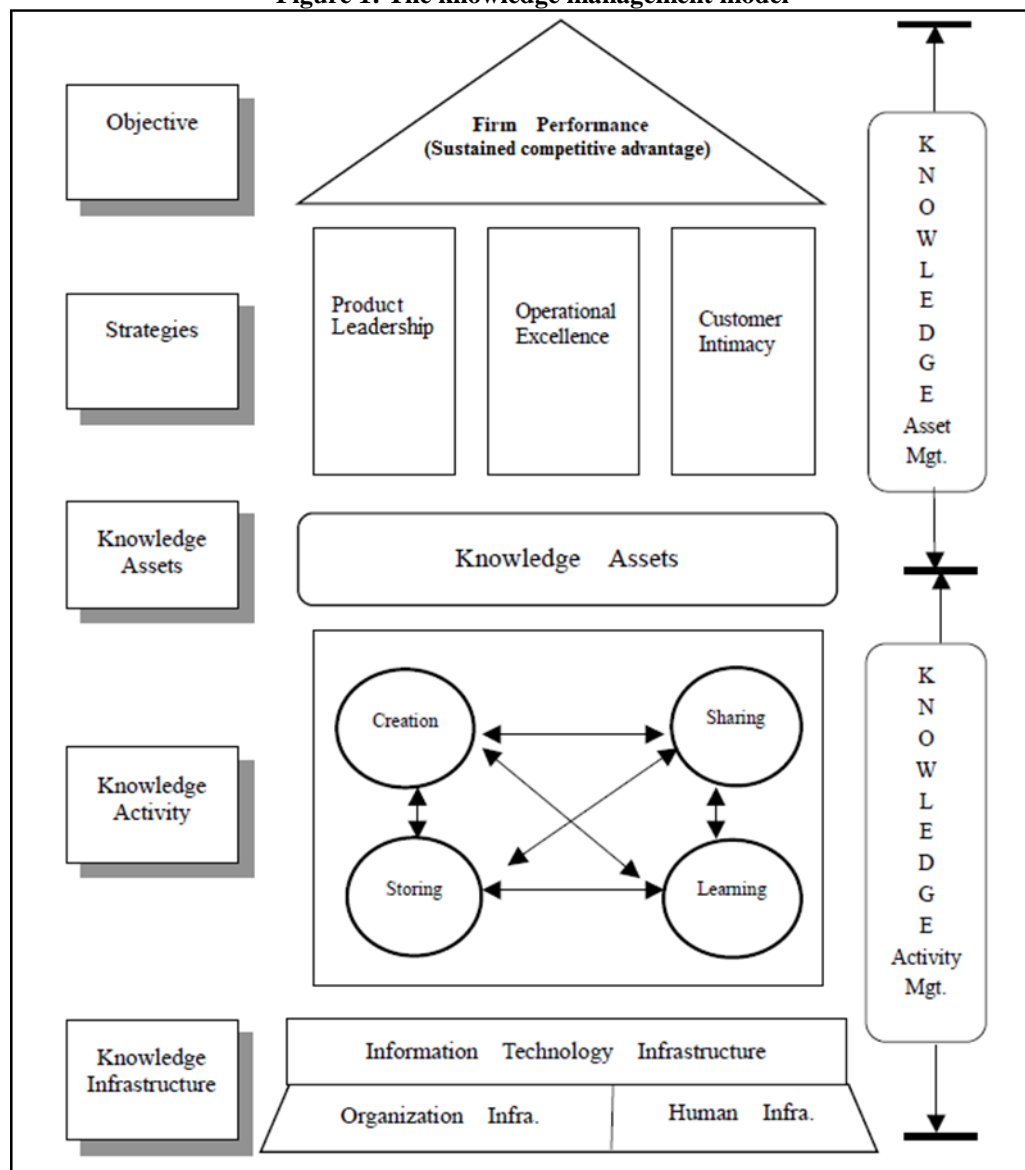
strategies according to firm's knowledge characteristics and concentrate investments on the selected strategy.

Product leadership is the competitive capacity to create customer value by providing the best product and constantly developing new products. Product leadership leads towards the completeness of a product and the assurance of the firm's competitive position on the market.

Operational excellence implies the competitive capacity to raise efficiency and reduce cost in operation by steering economy of scale, economy of range, standardization and specialization. The firm with an operational excellence provides a cost-efficient product in comparison with competitors by reducing invisible costs as well as visible.

Customer intimacy creates customer value and strengthens firm's competitive advantage by offering optimal solutions for customers based upon the knowledge from intimate relationship with customers.

**Figure 1: The knowledge management model**



Source: Yoon, K.S., *Knowledge management models: an empirical study*, University of New York Publishing, 2008

#### 4.3 Knowledge assets

Knowledge assets include necessary knowledge and the knowledge resulted from knowledge activities. Necessary knowledge means the knowledge necessary for implementing the strategies of product leadership, operational excellence or customer intimacy, which are, for instance, brand power,

design, patent, creativity, quality management, outsourcing, planning and control, process management, communication skills, information about customers and prompt customer correspondence. Also, knowledge is obtained from the activities like creation, storing, learning and sharing.

#### **4.4 Knowledge activities**

Knowledge activity is the total process of creation, storing, learning and sharing of knowledge which is embedded in organization and individuals. The objective of knowledge activity is to enhance both explicit and tacit knowledge in terms of quantity and quality. Knowledge creation refers to producing new knowledge while sharing is interchanging available knowledge between organization and individuals, between organization and organization or between individuals and individuals. Learning is an activity corresponding to acquiring new knowledge through the process of creation, sharing and storing. Storing refers to the activity of obtaining, retaining and classifying knowledge in a systematic order.

#### **4.5 Knowledge infrastructure**

Knowledge infrastructure refers to a platform of knowledge activities which is composed of organizational infrastructure (institution and culture included), human infrastructure and IT infrastructure. Organizational infrastructure refers to organizational structure, culture, recruiting, evaluation, compensation, training and human capital management. Human infrastructure is the capacity to facilitate knowledge activities, which includes not only leadership of top management, but specifying the role of knowledge manager, project manager and knowledge worker. IT infrastructure is firm's IT system that supports knowledge creation, sharing, learning and storing, which includes, for instance, groupware, intranet networking and hardware and software. Knowledge infrastructure is a crucial part as a necessary business resource to determine the success of knowledge management. What is important for the knowledge infrastructure is that it should be designed to fit to characteristics and capacity of an organization in particular.

### **5. Current status of SMEs in knowledge management**

It is appropriate to review the current status of SMEs in knowledge management in terms of the fore-mentioned elements of knowledge management.

#### **5.1 Strategy**

Product leadership of SMEs is weak analyzing their brand power, design capability and development of new products. Competitiveness of SMEs generally relies on low prices. SMEs are weak in utilizing explicit and tacit knowledge and tend to follow simple "Me too" strategy. SMEs have difficulties achieving operational excellence because most SMEs still stick to labor and capital in their production and operation process. Their focus of operation is mainly on achieving economy of scale or increase in productivity while they neglect the value creation from utilizing knowledge. SMEs cannot actively respond to change in the business environment or emerging new trends because they do not have capability to utilize knowledge and, thus, they are insensitive to challenges from the outside. Unless a firm is able to manage and analyze information or data about environmental changes, a firm cannot excel its competitors. SMEs are accustomed to improvement than innovation because they make investments in knowledge or physical assets with short-term perspective. SMEs tend to prefer immediate improvement of productivity to permanent or fundamental innovation of operational process. This may lead to an increase in divisional productivity but an increase in the efficiency of the total process is disregarded or only sub-optimization is attained rather than global optimization.

In the area of customer intimacy, SMEs are liable to be short of tangible customer information which is crucial for doing customer service. SMEs are not usually equipped with the infrastructure for market research to analyze customer need, customer taste and customer trend and regard the money required for understanding customer behavior and psychology as cost rather than investment.

#### **5.2 Knowledge Assets**

Some SMEs start to have an interest in knowledge assets but even those SMEs consider tangible assets more valuable than knowledge assets which are intangible and consequently knowledge assets are inefficiently managed and utilized. SMEs do not recognize necessary knowledge and knowledge gap with competitors because SMEs are ignorant towards the value and usefulness of knowledge. Considerable

amount of knowledge is lost in SMEs when employees quit or move to other divisions because they do not know how to store and manage knowledge assets.

### 5.3 Knowledge Activities

The amount of knowledge creation in SMEs is minimal because evaluation or reward system for newly created knowledge is poor, thus individuals are not motivated to create knowledge. Also, it is hardly expected to create knowledge under the circumstances that even the knowledge already existed in SMEs is not stored and managed properly.

Knowledge sharing is formed only among the interested parties at individual level, not at organizational. Individuals in SMEs are accustomed to the preservation of knowledge than sharing with others and consider the possession of knowledge as a source of power and so, try to hide it to raise his/her own value. This tendency incurs opportunity cost and hinders generating synergy effects. Individuals in SMEs are not trained to make learning organization that they have low capacity in absorbing knowledge. Also, individuals do not know what knowledge is learned and stored because there is no guide line or definition for what knowledge is necessary to organization.

### 5.4 Knowledge Infrastructure

Knowledge infrastructure is formed by organizational, human and information technological infrastructures. The way of solving problems and the decision-making process tends to be heavily dependent on only owner-entrepreneur's potential without a discussion in which various interested parties would take part. This tendency hinders individuals from developing their creativity and consequently limits knowledge sharing and transfer within an organization. Managers of SMEs tend to be more interested in such visible results as cost reduction, sales increase and productivity increase which can be attained in a relatively short time period than results of knowledge activities produced over a long period. In general, IT infrastructure in SMEs is very poor. Even the SMEs with the vision of knowledge management build IT system to do simple internal data processing of personnel, accounting or sales. It is rare to find "Decision support system (DSS) or Strategic information system (SIS)" in SMEs to support administrative activities. They put an all-in-one style package without considering user needs and user interface, which leads to low usage rate. Also, this package system is designed to fit to a data base storing simple information rather than storing complex knowledge and sharing it.

## 6. Conclusion

Knowledge management is one of the core tasks which application SMEs cannot postpone in order to maintain their competitive position. As it is suggested above, the knowledge management is a holistic approach to improve the firm's competitive advantage, which is different from the old management style that puts more emphasis on individual specialty and capability. The knowledge management is not a new tool or concept. It is rather a new way of doing things aiming towards the production of positive synergy effect by sharing and transmitting the knowledge a firm already owns.

Due to the recent advancement of information technology, SMEs can easily implement the knowledge management with relatively low costs than ever. This paper tries to develop a knowledge management model fitting to SMEs and suggest a strategic agenda according to which SMEs should pay attention in adopting the knowledge management. Since SMEs are poor in the area of knowledge management infrastructure, the entrepreneur's leadership is the most important ingredient to ensure success of the knowledge management. This paper is just an exploratory work which should be followed by empirical studies to ascertain practical implications.

## 7. References:

1. Awad, E. and Ghaziri H. (2007), *Knowledge management*, Pearson Education
2. Christensen, P.H. (2003) *Knowledge management: perspectives and pitfalls*, Copenhagen Business School Press
3. Drucker, P. (1998), *Harvard business review on knowledge management*, HBS Press
4. Malhotra, Y. (2001), *Knowledge management and business model innovation*, Idea Group Publishing,

5. Nonaka, I. (2005), *Knowledge management: critical perspectives on business and management*, Routledge
6. Yoon, K.S. (2008), *Knowledge management models: an empirical study*, University of New York Publishing

# STUDY REGARDING THE ATTITUDES TOWARD CORPORATE SOCIAL RESPONSIBILITY OF THE WORLD'S TOP TRANSNATIONAL CORPORATIONS

OGREAN Claudia

Associate professor / Ph.D., Faculty of Economic Sciences / Department Management-Marketing – Business Administration, "Lucian Blaga" University, Sibiu, Romania, claudia.ogrean@ulbsibiu.ro

**Abstract:** Transnational corporations (TNCs) are the leading actors of the global economic scene; so their strategic behaviors tend to be followed by their challengers – in search for global competitiveness. Therefore (and in spite of some well known blunders and slippages), Corporate Social Responsibility (CSR) may have the vocation to become a generalized dimension of the corporate strategy – as well as an answer to some of the very thorny problems facing the humankind. The aim of the paper is to analyze the attitudes toward CSR of the world's top TNCs, in order to see if there is a pattern regarding their strategies.

**Key words:** transnational corporations, corporate social responsibility, strategic approach

**JEL classification:** F23, M14

## 1. Introduction

Transnational / multinational corporations / enterprises (TNCs / MNEs) are, without any doubt now, the *engine that fuels the globalization process*; as any other engine, beside the *positive results/effects* they generate – such as moving forward of the global system, development and progress, they also risk to generate pollution, social disasters and *a whole plethora of other side effects*. Given their (sometimes) global, significant, diverse and long term impacts, very visible and susceptible to cause rejection (and sometimes even sabotages) from stakeholders, TNCs began to recognize the need of reconciliation with all the stakeholders – internal and external, primary and secondary. The literature, as well as all the international / global institutions and organizations have generated, captured and promoted a behavioral change concerning this issue.

## 2. Theoretical background and Literature review

According to Dunning and Lundan (2008) “*a multinational or transnational enterprise* is an enterprise that engages in foreign direct investment (FDI) and owns or, in some way, controls value-added activities in more than one country. This is the threshold definition of a multinational enterprise (MNE), and one that is widely accepted in academic and business circles, by data-collecting agencies such as the Organization for Economic Co-operation and Development (OECD), UNCTAD's Division on Investment, Technology and Enterprise Development (DITE), and by most national governments and supranational entities” (Dunning & Lundan 2008).

For the unified and comprehensive approach of its Transnational Corporations Statistics, UNCTAD starts this (website) section by defining TNC as follows: “*A transnational corporation (TNC) is generally regarded as an enterprise comprising entities in more than one country which operate under a system of decision-making that permits coherent policies and a common strategy*. The entities are so linked, by ownership or otherwise, that one or more of them may be able to exercise a significant influence over the others and, in particular, to share knowledge, resources and responsibilities with the others” (<http://unctad.org/en/Pages/DIAE/Transnational-Corporations-Statistics.aspx>).

On the other hand, the *corporate social responsibility* (CSR) construct describes the relationships between business and the larger society: “*from the point of view of the firm, its CSR is the set of moral duties towards other social actors and towards society that the firm assumes as a result of its economic, social, political, and, of course, ethical reflection on its role in society and on its relationships with those other actors. And with regard to external observers, it is the set of moral duties that the other agents and society attribute to the firm as a consequence of the role it assumes and its relationships with those actors. In practice, then, CSR will be the result of a dialog between the firm and its stakeholders about the obligations of the first and the expectations of the second*” (Argandona & von Weltzien Hoivik, 2009).

According to this kind of definition, Freeman and McVea promote *A Stakeholder Approach to Strategic Management*: “The idea of stakeholders, or stakeholder management, or a stakeholder

*approach to strategic management*, suggests that managers must formulate and implement processes which satisfy all and only those groups who have a stake in the business. The central task in this process is to manage and integrate the relationships and interests of shareholders, employees, customers, suppliers, communities and other groups in a way that ensures the long-term success of the firm. A stakeholder approach emphasizes *active* management of the business environment, relationships and the promotion of shared interests” (Hitt, Greeman, Harrison, 2006).

5. Why the pressure? Because “Sustainable development calls for people and organizations to meet their present needs in such a way that does not hinder future generations’ ability to do the same. Many TNCs are creating voluntary environmental programs to manage more effectively the environmental impacts of their plants, facilities, and operations.” (Rondinelli, 2007)

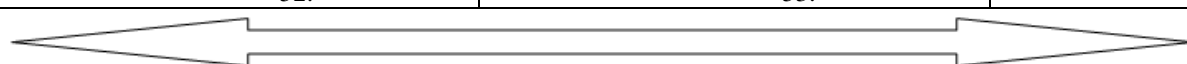
How to do this? ”In his speech at the Johannesburg World Summit for Sustainable Development (WSSD) in 2002, the UN Secretary General *Kofi Annan* expressed the *challenge of corporate responsibility* in the following way: “*I hope corporations understand that the world is not asking them to do something different from their normal business; rather it is asking them to do their normal business differently.*” (Wilenius, 2005)

6. The academic literature in the field of TNCs’ approaches and attitudes toward CSR is very generous – especially in the last decades. In their book called *International Business – Society Management. Linking corporate responsibility and globalization*, the authors summarize the steps that corporations have taken within their CSR approaches – see **Table 1** (Tulder and Zwart, 2006).

7.

**8. Table 1: Four CSR approaches**

9. Inactive	10. Reactive	11. Active	12. Proactive
13. Corporate selfresponsibility	14. Corporate social responsiveness	15. Corporate social responsibility	16. Corporate social responsiveness
17. Inside-in	18. Outside-in	19. Inside-out	20. Inside-out
21. Doing things right	22. Don’t do things wrong	23. Doing the right things	24. Doing the right things
25. Doing well	26. Doing well and doing good	27. Doing good	28. Doing good
29. Just do it	30. Just don’t do it	31. Do it just	32. Do it just
33. Efficiency		34. Equity/Ethics	35. Equity/Ethics
Utilitarian motive: profit maximization	37. Negative duty approach: quarterly profits and market capitalization	38. Positive duty or virtue based: values (long-term profitability)	39. Interaction medium and long term
40. Indifference	41. Compliance	42. Integrity	43. Doing the right things
44. Business and Society Management		45. Business in Society Management	46. Business in Society Management
47.	48. Trust me	49. Prove it to me	50. Involve me
51.	52.	53.	



Multi-usage tools / concepts of CSR:

PR Brochures  
Press Releases  
Sponsoring  
Transparency  
Accountability  
Corporate citizenship  
Corporate philanthropy  
Corporate volunteering  
Integrity  
Business – Community Involvement (BCI)

Economic Responsibility  
(Wealth oriented)  
Narrow (internal) CSR



Social responsibility  
(Welfare oriented)  
Broad (external) CSR

55.

56. Source: Tulder and Zwart, 2006



57.

58. In 1997 John Elkington has propose – into his reference work *Cannibals with Forks: the Triple Bottom Line of 21<sup>st</sup> Century Business* – the concept and practice of the necessary **triple bottom line** – able to integrate within a coherent corporate strategy **Profit – People – Planet** (Elkington, 1997). Tulder and Zwart have enriched – through their book from 2006 – the CSR approach with the **triple E principle of doing business: Efficiency – Effectiveness – Equity/Ethics** (Tulder and Zwart, 2006). An apparent oxymoron seems to be the solution that everyone was looking for since decades, and the evolutionary process presented by the two authors on their charts make this approach not only logical and natural, but also profitable and desirable for the long term survival of corporations.

59.

### 3. The world's top 10 non-financial TNCs and their approach regarding CSR

In order to analyze the attitudes and behaviors of the world's top transnational corporations (TNCs) toward corporate social responsibility (CSR) we undertook the following:

- a. We have extracted *top ten non-financial TNCs in terms of transnationality index (TNI)* from the UNCTAD's top 100 (reference year being 2010 – the most recent analysis available). The “*Transnationality Index is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.*” (UNCTAD, 2011). We have selected the top 10 TNCs in terms of TNI as percent and not in terms of TNI by assets (as most of the studies use) because we assume that the TNCs approaches are rather based on the industry they operate in and by unique strategic choices between universalism and relativism they make, rather than by their assets. The results are presented in Table 2.

**Table 2: The world's top 10 non-financial TNCs, ranked by TNI, 2010**  
(Millions of dollars and number of employees)

TNI rank	TNC	Home economy	Industry	Assets		Sales		Employment		TNI %
				Foreign	Total	Foreign	Total	Foreign	Total	
1	Nestlé SA	Switzerland	Food, beverages and tobacco	113 574	118 818	103 154	105 209	271 605	281 000	96,8
2	Anglo American plc	United Kingdom	Mining & quarrying	62 238	66 656	25 772	27 960	92 000	100 000	92,5
3	Anheuser-Busch InBev NV	Belgium	Food, beverages and tobacco	108 440	114 342	32 193	36 297	104 126	114 313	91,5
4	Pernod-Ricard SA	France	Food, beverages and tobacco	31 070	33 264	8 821	9 821	15 796	18 453	89,6
5	Nokia OYJ	Finland	Electrical & electronic equipment	44 140	52 276	55 728	56 220	112 586	132 427	89,5
6	Linde AG	Germany	Chemicals	32 731	35 927	15 432	17 044	41 262	48 430	88,9
7	WPP PLC	United Kingdom	Business services	33 074	38 111	12 737	14 417	91 767	101 387	88,5
8	Xstrata PLC	Switzerland	Mining & quarrying	66 430	69 709	22 902	30 499	36 436	38 561	88,3
9	Unilever PLC	Netherlands/ United Kingdom	Diversified	49 637	55 007	54 003	58 625	136 000	165 000	88,3
10	Schneider Electric SA	France	Electricity, gas and water	36 876	41 490	23 580	25 934	102 490	123 482	87,6

Source: UNCTAD ([http://unctad.org/Sections/dite\\_dir/docs/WIR11\\_web%20tab%2029.pdf](http://unctad.org/Sections/dite_dir/docs/WIR11_web%20tab%2029.pdf))

- b. We have analyzed the general *approach toward CSR of the top ten TNCs from their websites*: on one hand we took into consideration the content of the special dedicated CSR / sustainability button and, on the other hand, we analyzed the corporations' report regarding CSR – as voluntary reporting and emphasizing of the corporations' CSR strengths. The summarized results are as follows:

**Nestlé SA** (<http://www.nestle.com/Pages/Nestle.aspx>) – the corporation with the highest transnationality index (TNI), has developed its CSR approach under the *Creating Shared Value*

commandment. It states within its Creating Shared Value 2011 Report *Meeting the global water challenge*: “It is our firm belief that, for a company to be successful over time and create value for its shareholders, it must also create value for society. We call this *Creating Shared Value* (CSV). Based on strong foundations of compliance and sustainable business practices, this is our basic way of doing business. We have identified *the most fertile opportunities for Creating Shared Value*, in areas that are core to our business activities and vital for our value chain. These *are nutrition, water and rural development*. (...) *Why Nutrition?* Because food and nutrition are the basis of health and of our business as the leading Nutrition, Health and Wellness company. *Why Water?* Because the ongoing quality and availability of this resource is critical to life, the production of food and to our operations. *Why Rural Development?* Because the overall well-being of farmers, rural communities, small entrepreneurs and suppliers is intrinsic to the long-term success of our business. (...) Engaging with our stakeholders underpins Creating Shared Value (CSV), enabling us to identify emerging issues, shape our responses and continue to drive performance improvements.”

**Anglo American plc** (<http://www.angloamerican.com/>) – the second best placed corporation in terms of TNI has grouped its CSR concerns around the concept and practice of *Sustainable Development*, because: “Sustainable development touches on every aspect of our business, from the moment we identify a possible exploration site all the way to a mine’s eventual closure. We believe that *maximizing shareholder value over the long term is best achieved through an intelligent regard for all our stakeholders, and by acting with integrity and responsibility*.” As a result of this kind of approach, the CSR strategy developed by the corporation aims the sustainable development, which “is *embedded in our policies, strategies and everyday practices*. We assess the economic, social and environmental risks and benefits of every decision. We also work in partnership with our stakeholders to promote sustainable development. *Our goal is to maximise our positive contributions, alongside governments and society, and reduce any negative impacts*.” (<http://www.angloamerican.com/about/approach/development>). That is why the most recent Sustainable Development Report 2011 *What it takes: Partnership and Innovation* emphasizes on sustainability as the ultimate validation unit for the corporate strategy of Anglo American plc: “We strive to place sustainability at the heart of decision-making across all our operations and every aspect of our business.”

**Anheuser-Busch InBev NV** (<http://www.ab-inbev.com/>) – the corporation placed on the third place of TNI Top 3 talks about *Global Citizenship* when referring to its Social Responsibility dimension. In accordance with this self assumed status, the most recent Global Citizenship Report 2010 argues from its very beginning: “At AB InBev, we strive to be *the Best Beer Company in a Better World*. But we cannot achieve this goal in a vacuum. We must work hand in hand with many people, the most important being our employees. Their talents and dedication are the foundation of all we do – from brewing our high-quality beers and promoting their responsible enjoyment, to conserving and protecting our natural resources, to supporting the communities in which we operate. Beyond our organization, we also must form partnerships – essential collaborations that enable us to reach higher and wider to create a better world. These partnerships include community groups, NGOs, government agencies, and industry peers, as well as academic institutions and experts who help us in this journey. As a result, *we have achieved great progress in helping create a healthier environment, vital communities and a safe workplace where our employees can thrive*.” In order to accomplish its aim, Anheuser-Busch InBev NV defines the Better World focus areas: “*Responsible Drinking* - providing quality products, marketing them responsibly, and helping to address the problems of irresponsible drinking, including drunk driving and underage drinking; *Environment* – conserving water and energy; reducing our greenhouse gas emissions, by-products and waste; and helping our supply chain be more efficient; *Community* – providing jobs and competitive wages, paying taxes to local and national governments, making capital investments in our facilities, and giving back through donations and volunteerism to the communities where we operate; *Our People* – promoting learning and talent development, providing a safe work environment, and helping to ensure that our business is conducted with integrity fuel our social responsibility work.”

**Pernod-Ricard SA** (<http://www.pernod-ricard.com/>) – according to the corporation’s front page statements, “*corporate responsibility means reconciling economic development with social justice and the protection of the environment*, all as part of a programme of *continuous improvement*. (...) In practical terms, Pernod Ricard’s ideal of corporate responsibility translates into *real commitments with respect to: shareholders* – for whom the Group is committed to offering an attractive investment; *employees* – with whom Pernod Ricard strives to develop a relationship of trust; *consumers* – Pernod Ricard encourages the general public, particularly young adults, to drink in moderation; *the environment* – Pernod Ricard is committed to the natural environment and biodiversity.” As the corporation’s CEO has argued within the

2011 Pernod Ricard Communication on Progress, in 2010 “the Group decided to create the Pernod Ricard CSR platform to focus on its CSR strategy and be even more effective in its respect of each of the 10 principles of the Global Compact. The CSR platform is aligned with the 3 values of our company: entrepreneurial spirit, mutual trust and sense of ethics. It represents the five CSR priorities of Pernod Ricard: respect our stakeholders, responsible drinking, environment, entrepreneurship and share our culture.”

**Nokia OYJ** (<http://www.nokia.com/global/about-nokia>) – as regards sustainability, the strategy toward it is integrated at all the levels of decisions and actions: “responsible environmental and social practices are integrated into everything we do. From the devices we build and the suppliers we choose, to our mobile solutions that enhance people’s education, livelihoods and health.” So, in accordance with this declarative statement, the 2010 Nokia Sustainability Report states that: “Sustainability is an integral part of our business strategy. We take a systematic approach to identifying the opportunities and risks sustainability presents, and we aim to minimize the negative impact of our operations and maximize the positive impact. (...) the three areas which help deliver our goal of connecting everyone to sustainable development: our products and services, our people and our operations. Our targets are supported by global principles and standards and go way beyond compliance.”

**Linde AG** (<http://www.the-linde-group.com/en/index.html>) – the corporation defines itself as “a world leading gases and engineering company. The strategy of The Linde Group is geared towards sustainable earnings-based growth and focuses on the expansion of its international business with forward-looking products and services”. In accordance with this assumption, the corporate responsibility strategy of the corporation states that: “We act responsibly towards our shareholders, business partners, employees, society and the environment – in every one of our business areas, regions and locations across the globe. Our corporate responsibility strategy anchors our high standards into our day-to-day business.”

**WPP PLC** (<http://www.wpp.com/wpp/>) – the role and contribution of corporate responsibility is stated at this corporation as follows: “we believe that behaving responsibly towards people and the environment helps us achieve our business goals and maintain strong relationships with clients, our people, regulators, suppliers and investors.” Under these circumstances, the relationship between corporate responsibility and the business strategy is defined as follows: “Our CR activity enables us to take advantage of new opportunities and to manage social and environmental risks connected to our strategy. It supports our business goals directly in a number of areas, including: generating new business opportunities, attracting and retaining the best people, reputation risk management, meeting investor and client expectations, improving efficiency.”

**Xstrata PLC** (<http://www.xstrata.com/>) – on the first page of its website, the corporation proclaims: “Sustainability is at the heart of what we do”; then, it continues, through the introductory message of the CEO regarding sustainability: “Our mission statement makes clear that creating sustainable value for our stakeholders is as much our objective as delivering industry-leading returns to our shareholders - in fact, the two are intrinsically linked and interdependent. Without creating benefits for society, our business will not prosper over the long term and without successful businesses, societies equally cannot flourish.”

**Unilever PLC** (<http://www.unilever.com/>) – the general statement regarding sustainability argues that: “Sustainability is critical to the continued success of our business and to the environment and society we live in. (...So, ...) through our business and brands, we want to create a better future every day for people all around the world: the people who work for us, those we do business with, the billions of people who use our products, and future generations whose quality of life depends on the way we protect the environment today”. The corporation has also a special website exclusively dedicated to sustainability: Unilever sustainable living plan: Small actions, Big difference.

**Schneider Electric SA** (<http://www.schneider-electric.com/>) – the sustainable related chapter of the corporation enrolls under the following statement: “Energetic and environmental responsibility lies at the core of Schneider Electric culture and strategy. Sustainable development is a real and essential opportunity for mobilisation, growth, and differentiation.” The most recent Strategy and sustainable development report 2010-2011 confirms and strengthens this approach, through the CEO’s words : “Sustainable development is a conviction, a commitment at all levels of the company and in all its dimensions, from an ethical, social, environmental, or corporate perspective. This is also an important growth driver for Schneider Electric which has decided since long ago to pursue a proactive, innovative, and concrete policy, whose efficiency is measured regularly.”

#### 4. Conclusions

Referring to the analyzed TNCs – the world's top ten transnational corporations in terms of transnational index value (percent), we must emphasize some *general features of their attitudes toward corporate social responsibility*:

- each one of the TNCs (at least) declares about itself that is very concerned regarding this dimension of its existence – even if the corporation defines it in terms of *sustainability, sustainable development or corporate social responsibility*; this is a very well emphasized and promoted issue also on the corporations websites, with (almost) no exception, no matter if the TNC's (general) approach is a relativist or an universalist one;
- in most of the cases, the kind of attitude that TNCs have toward CSR is part of an integrative and holistic approach of the corporate strategy – generally, TNCs argue that the whole corporate strategy is developed by taking into consideration the CSR commandments, defined and assumed as core business principles;
- the TNCs are, in general, very preoccupied about the specific kind of possible damage they risk to be accused of – because of the industry they represent and the specific activities they develop – and direct their CSR concerns and strategies toward those specific issues (the corporations from the Mining & quarrying industry: to the environmental problems; the Food, beverages and tobacco representatives: to responsible drinking, etc.);
- the pressures of the global concerns and problems on one hand, as well as those related to the global competition and the continuous refining of the competitive strategies, on the other hand, had determined an evolution in the way corporations relate to CSR; in most of the cases, the CSR strategy is no longer a differentiation one, but it has become a basic one – essential for the very survival of the corporation;
- the declarative dimension of the CSR strategy – its reporting part – is also very important for these corporations, so the TNCs strive to develop annual CSR reports in accordance with globally recognized standards; they are then categorized, ranked and awarded by international organizations or media groups based on those reports and on the feedback given by different stakeholders;
- inevitably, discrepancies sometimes occur between the TNCs declarations and their actual (re)actions regarding CSR (when corporations try to exclusively benefit from a favourable situation by neglecting any other concern than profit); this kind of behaviour always raises question marks about the corporation's honesty and business ethics and they sometimes generate expensive lawsuits and/or aggressive rejection reactions from consumers.

In conclusion, given the above mentioned circumstances, we believe that *transnational corporations simply cannot give up to the responsible side of their business* (regarding all of their internal and external, as well as primary and secondary stakeholders). This is not just a trendy attitude, but more and more an instrument in order to validate a TNC on long term basis – through its corporate strategy aimed to sustainably satisfy all the stakeholders' interests, in order to successfully survive within the global hyper competitive and challenging environment. This kind of strategic behavior will also be a good example and motivator factor for the challengers of the TNCs and a proper answer to some of the very thorny problems facing the humankind – nowadays and as well in the foreseeable future.

## 5. Acknowledgement

"This work was supported by the project "Post-Doctoral Studies in Economics: training program for elite researchers - SPODE" co-funded from the European Social Fund through the Development of Human Resources Operational Programme 2007-2013, contract no. POSDRU/89/1.5/S/61755.)".

## 6. References

- Argandona, A.; von Weltzien Hoivik, H. (2009) Corporate Social Responsibility: One Size Does Not Fit All. Collecting Evidence from Europe, *Journal of Business Ethics*, Vol. 89, pp. 221-234.
- Dunning, J.H.; Lundan, S.M. (2008) *Multinational Enterprises and the Global Economy*, Second Edition. Cheltenham, UK, Northampton, M.A., USA: Edward Elgar.
- Elkington, J. (1997) *Cannibals with Forks: the Triple Bottom Line of 21<sup>st</sup> Century Business*. Oxford: Capstone Publishing

- Hitt, M.A., Freeman, R.E., Harrison, J.S. (Ed.) (2006) *The Blackwell Handbook of Strategic Management*. Blackwell Publishing. Blackwell Reference Online, Available at [blackwellreference.com/public/book?id=g9780631218616\\_9780631218616](http://blackwellreference.com/public/book?id=g9780631218616_9780631218616)>
- Meier, O.; Schier, G. (2003) *Entreprises Multinationales. Strategie. Restructuration. Gouvernance*. Paris: Dunod.
- Rondinelli, D.A. (2007) Globalization of Sustainable Development: Principles and Practices in Transnational Corporations, *Multinational Business Review*, Vol. 15 Iss: 1, pp.1 – 24.
- Van Tulder, R.; Van der Zwart, A. (2006) *International Business – Society Management. Linking corporate responsibility and globalization*. London and New York: Routledge
- Wilenius, M. (2005) Towards the age of corporate responsibility? Emerging challenges for the business world, *Futures* 37, 2005, pp. 133–150.
- UNCTAD (2011) World Investment Report 2011, *Non-Equity Modes of International Production and Development*, Available at [http://www.unctad.org/en/docs/wir2011\\_embargoed\\_en.pdf](http://www.unctad.org/en/docs/wir2011_embargoed_en.pdf).
- <http://www.nestle.com/Pages/Nestle.aspx>
- <http://www.angloamerican.com/>
- <http://www.ab-inbev.com/>
- <http://www.pernod-ricard.com/>
- <http://www.nokia.com/global/about-nokia>
- <http://www.the-linde-group.com/en/index.html>
- <http://www.wpp.com/wpp/>
- <http://www.xstrata.com/>
- <http://www.unilever.com/>
- <http://www.schneider-electric.com/>

# GLOBAL CRISIS: SEARCHING THE ORIGINS BY BUSINESS ECONOMICS

**POLLIFRONI Massimo**

*Associate Professor, Faculty of Economics, Department of Management, University of Turin, Italy,*

*E-mail: [pollifroni@econ.unito.it](mailto:pollifroni@econ.unito.it)*

**Abstract:** Aim and topic of the paper is to research the causes of the current global crisis, which manifests itself in financial terms, but whose origin is due to the ethical model of reference: the question is evident both in macroeconomics and in Business Economics. Just from this last point of view, the article will attempt to highlight what should be the correct drivers of ethical management for companies oriented towards an internationalization of their business.

**Key words:** Business Economics, Business Ethics, Corporate Social Responsibility, Globalisation, Sustainable Development

**JEL classification:** M14, M16, M21

## 1. Introduction: an attempt to definition of business company

The globalisation is an economic phenomenon, that conditions especially economic integrations, but it makes also problems for many cultures around the world, because there is incompatibility between human relationships and the extreme exploitation of resources and the maximization of the concept of competitiveness on liberalized markets (Boyer et al., 1996). Usually the study of globalization has affected the social and economic sciences: this paragraph is dedicated to present the globalisation following a Business Economics approach, where the starting point of the path is provided by the declination of business company (or business enterprise, or simply company, or enterprise).

The company and its life are the fundamental topics for the Business Administration studies: the companies, which are considered long-term institutions, have as objective the direct or indirect satisfaction of human needs, so distinguishing themselves in “*supplying companies*” and “*production companies*”, these two aspects coexist in the mixed companies. According to the traditional “*Zappa’s approach*” (Zappa, 1926), the Business Administration studies “*(...) the conditions of the existence and expression of the life of the company (...)*” (Coda, 1985), that make the company a non-contingent entity but “*established to last*”. The companies are the instrument through which we operate in the economic field, consequently they reflect the expression of the economic activity aimed to satisfy “*needs*” that require, in conditions of “*limited tools*”, “*economic goods*” in a systematic “*create and consume*” process (Onida, 1947). The above mentioned definition of company is the classic definition in the Italian Business Administration that, with reference to the object of the activity – represented by the general goal necessary for the satisfaction of human needs – distinguishes a company according to the following classification:

- production companies for the exchange market (or enterprises); the scope of production companies is to create richness or to achieve a profit to destine, subsequently, to the fulfilment of distribution needs;
- supplying companies (or consumer companies) the aim of supplying companies, on the contrary, is to provide for the fulfilment of those needs, either through distribution or through consume expenditure: they gain their denomination from the money expenditure phase or from the distribution of profits or incomes, that usually precede the consume phase.

In order to complete the sentence above, we point out the evolution of the idea of company, promoted by the recent documents edited by the “*Società italiana dei Docenti di Regioneria ed Economia Aziendale – Italian Society of Teachers of Accounting and Business Administration*”, in which we identify a company body to be intended – always and in any case – as a “*production fact*” (Coda, 2006): both the consumer companies and the enterprises carry out the economic activities of “*consuming and creation*”, acquisition, maintenance and distribution of services and goods under limited resources conditions.

In the economic system, exchange relationship between the two indicated company categories are established in the “*remuneration process*” of the production factors employed, factors that are usually made available by the consumer companies in terms of work and savings, and in terms of offer for market

exchange of goods and services by the enterprises: in this system the mutual flow of “*real*” exchanges of goods and services, made possible by the use of money as mean of compensation, are highlighted. The distinction between consumer companies and enterprises is used as a theoretical referential model, as the consumer production, acquisition, maintenance processes are common to all companies and “*pure*” consumer companies or “*pure*” enterprises do not exist. The enterprises, for example, add to the market commercial exchanges, incidental allocations and liberalities on social, aid and cultural promotion basis for employees, partners, clients, suppliers and other subjects more or less involved in management.

The consumer companies, on their side, often perform, apart from their specific allocations, commercial activities in terms of market exchange, transferring, under compensation, goods and services to be used for financial gatherings to be addressed in the institutional activities. In the end and after considering the objective characteristics of companies, it is possible to outline a third category, that enrolls combined (mixed) companies in which both the specific activities of consumer companies and enterprises coexist. Business Administration individuates, besides, according to the distinctive characteristics of their subject, the category of public companies in antithesis, on a social-economic basis, with private companies. This distinction between public and private companies is based on two fundamental criteria (Puddu, 2001): the economic and legal criteria. The economic criterion analyses the nature of the economic subject represented by people, that is those people who “*(...) hold and exercise the wilful power and connected prerogative and right to choose and decide about the management of the company (...)*” (Catturi, 1968). But the legal criterion classifies the company on the basis of the private – or public – nature of the main shareholder, the subject who has control over the governance of the company:

- the public enterprise is under a public control;
- the private enterprise has its governance controlled by a private subject.

As already mentioned, the real economic system has to be intended as “*mixed*” since neither the “*collective*” nor the “*market*” form can be considered as “*pure*” models. Compared to the described model based on two sectors – public and private sectors – it can be observed that a “*third sector*” is identifiable formed by “*(...) subjects not ascribable to the State, as they originate from private initiative and operate with resources and in the interest of privates; not ascribable either to enterprises as they do not operate according to the logic of exchanges for profit (...)*” (Ferrero, 1968). The economic-corporate nature of the “*Third sector*” can be better interpreted through a joint analysis of the principles for company classification with reference to their objective and subjective characteristics. The simultaneous classification of the companies considered both from the actual objective economic activity performed, consumer items or production, and from the subjective classification as public or private, allows – in the end – to synthesize the following “*objective-subjective*” theoretic configurations. The model identifies the following four “*objective-subjective*” company configurations (Puddu, 2001; Anselmi, 1996):

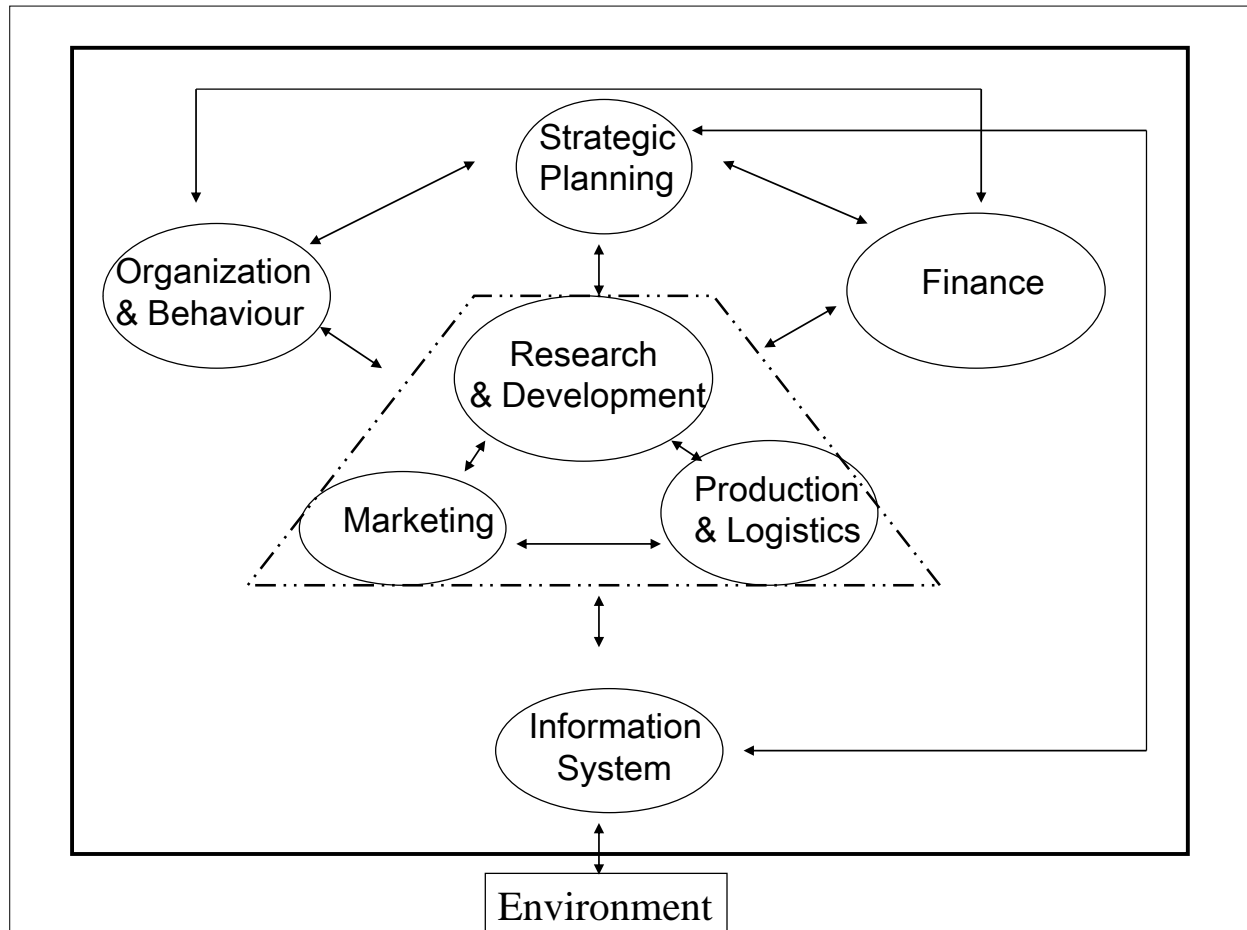
- Public Administrations, consumer companies with no profit making or distributing goals, whose governance control is performed by public juridical subjects (i.e. Regions, Public Universities, Local Municipalities, etc.);
- Public Enterprises, companies that operate for the general market, which are basically public even if legally they are structured as business companies (i.e. Consip S.p.A., Sogei S.p.A.: in these Italian cases the main shareholder is the Ministry of Economy and Treasury);
- Private Enterprises, companies that produce goods for market exchange, with profit making and earn sharing goals, legally based on private assets (i.e. companies quoted at the stock exchange whose governance control is performed by private juridical subjects: these enterprises are also called “*public companies*” in the Anglo-Saxon model of Business Economics);
- Not-for-profit Organizations, consumer companies with no profit making or distributing goals, whose governance control is performed by private juridical subjects [i.e. Non-Governmental Organizations (NGOs), Non-Profit Organizations (NPOs), etc.].

All these kinds of companies – with reference to their internal structure – can be studied following a “*functional study approach*” that identifies two “*Corporate Functional Macro Areas*” (Figure n. 1):

- 1) the “*Core Functional Areas*”;
- 2) the “*Integrative Functional Areas*”.

The first cluster – “*Core Functional Areas*” – includes “*Research & Development Area*”, “*Marketing Area*” and “*Production & Logistic Area*”: these areas have specific characteristics depending on the activities carried out. The second cluster – “*Integrative Functional Areas*” – includes “*Finance Area*”, “*Organization & Behaviour Area*”, “*Strategic Planning Area*” and “*Information System Area*”: these areas have characteristics common to all types of enterprises, regardless of the business activities.

**Figure 1: The approach that identifies the “Corporate Functional Areas”**



Source: (Ferrero, 1987)

## 2. A Business Economics approach to present the globalization: discussion and analysis

Following the “*functional study approach*” – illustrated in the previous pages – now it is possible to identify four “*business models*”, with reference to the activities of corporate relocation (or internationalization of business):

- “*Local company*”;
- “*Budded company*”;
- “*Partial relocated company*”;
- and “*Hollowed company*”.

These “*business models*” models are explained in the following points.

The “*Local company Model*” presents the following characteristics:

- these enterprises don’t realize global strategies;
- the business continues to be allocated only inside the domestic market;
- these companies – also so called “*Local Players*” – suffer passively the international competitiveness;
- in the long term these companies may have strong problems of survival resulting from the globalization of markets.

The “*Budded company Model*” presents the following characteristics:

1. these subjects realize full global strategies;



2. these companies actively address themselves to the international competitiveness;
3. new enterprises are created around the world, but the holding (or “*Parent company*”) maintains the historical operational structure;
4. this approach does not cause a negative impact in terms of employment.

The “*Partial relocated company Model*” presents the following characteristics:

- these subjects realize partial relocation strategies;
- these companies actively addressing the international competitiveness;
- in this case the corporate delocalisation regards some “*Corporate Functional Area*”, or some business unit, or some business process, etc.;
- this model has a partial negative impact in terms of employment (with reference to the Nation of the “*Parent company*”).

The “*Hollowed company Model*” presents the following characteristics:

- these subjects realize full relocation strategies;
- these companies actively addressing the international competitiveness;
- in this case the corporate delocalisation regards all “*Corporate Functional Areas*”, or all business units, or all business processes, etc.;
- this model has a full negative impact in terms of employment, because the “*Parent company*”, becomes a “*Hollowed company*”.

The next step is to identify which of these models goes towards an ethical model of globalization. In the first instance it is possible to say that a corporate organisation has an ethical outline when – not only – it respects the laws, but it also manages its own business respecting the interest of the various stakeholders: “*business ethics*” is closely tied to issues of “*sustainable development*” and that of “*corporate social responsibility*”. The first issue – regarding the concept of “*sustainable development*”, first introduced in 1987 by the World Commission on Environment and Development (WCED) – is defined as “(…) *the economic and social development that doesn’t compromise the environment and the natural resources the continuation of human species and the future development depend on (...)*” (WCED, 1987).

Starting from this definition it was possible to explain sustainability in three different ways: “(…) ”

1) *environmental sustainability: the ability of preserving the quality and the reproducibility of natural resources;*

2) *social sustainability: the ability of assuring human welfare and growth opportunity respecting human rights and labour law;*

3) *economic sustainability: the ability of creating incomes, profits and stable and durable jobs (...)*” (CNDCEC, 2009).

About the second issue – the “*corporate social responsibility*” – European Commission defines the Corporate Social Responsibility as “(…) *the voluntary decision to contribute to the progress of the society and to the defence of the environment, integrating social and environmental problems into the corporate operations and the interactions with the stakeholders (...)*” (EC, 2000). In October 2011 the European Commission published a new policy on “*corporate social responsibility*”. It states that to fully meet their social responsibility, enterprises “(…) *should have in place a process to integrate social, environmental, ethical and human rights concerns into their business operations and core strategy in close collaboration with their stakeholders (...). The aim is both to enhance positive impacts – for example through the innovation of new products and services that are beneficial to society and enterprises themselves – and to minimise and prevent negative impacts (...)*”. (EC, 2011).

The two concepts investigated – “*sustainable development*” and “*corporate social responsibility*” – have a common denominator in the environmental and social sustainability, while the third point of view – economic sustainability - is considered:

- in macroeconomic terms, following the concept of “*sustainable development*”;
- in business operations and core strategy, within the concept of “*corporate social responsibility*”.

In the latter case, the economic sustainability can be ensured only by the presence of a constant and continuous “*corporate profitability*” resulting from the business operations and the core strategy. So for defining a model of globalization oriented to “*business ethics*”, it is necessary that two conditions are met jointly (Figure n. 2):

- 1) there must be a constant and continuous attention to the value creation for stakeholders and this condition match the model of the “*corporate social responsibility*” (csr) (Carroll, 1979);
- 2) there must be a regular and fair return on capital, with constant monitoring of the most important key financial ratios, with particular reference to the “*corporate profitability*” (cp), because Business Administration observes the company like a non-contingent entity “*established to last*” (as has been previously emphasized).

**Figure 2: The Business Ethics Drivers**

BUSINESS ETHICS DRIVERS		DEFINITION		POTENTIAL OUTCOMES			
=		=		=	=	=	=
<u>CORPORATE SOCIAL RESPONSIBILITY</u>	=	Enterprises should have in place a process to integrate social, environmental, ethical and human rights concerns into their business operations and core strategy in close collaboration with their stakeholders.	=	driver is present	driver is absent	driver is present	driver is absent
$\cap$		$\cap$		$\cap$	$\cap$	$\cap$	$\cap$
<u>CORPORATE PROFITABILITY</u>	=	Enterprises must have a regular and fair return on capital, with constant monitoring of the most important key financial ratios (with particular reference to the "corporate profitability").	=	driver is present	driver is present	driver is absent	driver is absent
=				=	=	=	=
<u>BUSINESS ETHICS</u>	=	POTENTIAL OUTCOMES	=	<u>Model oriented to Business Ethics</u>	Model not oriented to Business Ethics	Model not oriented to Business Ethics	Model not oriented to Business Ethics

Source: (Development proposed by the Author)

For theorizing a processes of globalization oriented to “*business ethics*” the two drivers must be present jointly, because:

- the only exclusive presence of the “*corporate social responsibility*” (csr) does not always guarantee business continuity;
- while the only exclusive presence of the “*corporate profitability*” (cp) does not always guarantee that enterprises “(...) *should have in place a process to integrate social, environmental, ethical and human rights concerns into their business operations and core strategy in close collaboration with their stakeholders* (...)” (EC, 2011).

This theorization may be explained using the following a formula:

$$(be) = (csr) \cap (cp)$$

with:

- (be) = “*business ethics*”;
- (csr) = “*corporate social responsibility*”;
- (cp) = “*corporate profitability*”.

Unfortunately, the current globalization has focused more on “*corporate profitability*” (cp) and less on “*corporate social responsibility*” (csr), favouring models previously defined as “*Partial relocated*

*company Model*” or/and “*Hollowed company Model*” (Rodrik, 2011): the final part of the paper is dedicated to explore these concepts.

### 3. Conclusions

The contents of this article has focused in identifying the causes of the current global crisis, which manifests itself in financial terms – with effects in the economic and social field ( Tileaga, 2010) – but whose origin is due to the ethical model of reference: the question is evident both in macroeconomic terms and in Business Economics approach. Just from this point of view, the article has attempted to highlight what should be the correct drivers of ethical management for companies oriented towards an internationalization of their business.

Following a “*functional study approach*” the paper has defined four business models, with reference to the activities of corporate relocation: 1) “*Local company*”; 2) “*Budded company*”; 3) “*Partial relocated company*” and 4) “*Hollowed company*”.

Then our proposal has identified two drivers, which must be met jointly in the processes of globalization to ensure “*business ethics*” (be):

- the “*corporate social responsibility*” (csr);
- the “*corporate profitability*” (cp).

Only in the “*Budded company Model*” are jointly present the two drivers: this dual presence of the two conditions is the only condition (necessary and sufficient) to ensure a model of globalization oriented towards “*business ethics*”. This condition is not present in the other three cases, because:

- in the “*Local company Model*” the enterprises don’t realize global strategies and in the long term these companies – also so called “*Local Players*” – may have strong problems of survival resulting from the globalization of markets;
- while in the other two cases – “*Partial relocated company*” and “*Hollowed company*” – could be guaranteed only the corporate durability, but not the corporate social responsibility, because these models have a partial (or full) negative impact in terms of employment (with reference to the Nation of the “*Parent company*”).

In conclusion it can be stated as follows (Table n. 1):

- the case of the “*Budded company*” is included in a paradigm of globalization classifiable as “*Fair Globalization*”;
- while the other two cases – “*Partial relocated company*” and “*Hollowed company*” – represent the alternative paradigm of globalization classifiable as “*Unbridled Globalization*”.

**Table 1: Comparative Analysis of the Business Models underlying the different Paradigms of Globalization**

<b>Paradigms of Globalization</b>	<b>Unbridled Globalization</b>	<b>Fair Globalization</b>
<u>Business Models Underlying</u>	<ul style="list-style-type: none"> <li>• <u>Partial relocated company</u></li> <li>• <u>Hollowed company</u></li> </ul>	<ul style="list-style-type: none"> <li>• <u>Budded company</u></li> </ul>
<b>1. Corporate Target</b>	Profit Maximization	Adherence to the concept of Business Ethics
<b>2. Term Perspective of Corporate Strategy</b>	Short-Term Period	Long-Term Period
<b>3. Profile of Innovation pursued by the company</b>	Financial Innovation	Full Innovation
<b>4. Vision of the Corporate Finance Area</b>	As a Core Functional Area	As an Integrative Functional Area
<b>5. Analysis of the Corporate Budget/Report</b>	Priority to Financial Analysis applied to the Corporate Budget/Report	Priority to Core Business Analysis applied to the Corporate Budget/Report

Source: (Development proposed by the Author)

Further arguments and widening, combined with an experimentation on the field, will be able, therefore, to allow a useful consolidation of this proposal and favour at the same time a working progress process of a new vision of the corporate globalisation referred to the Business Economics.

So, it necessitates a realignment of these imbalances, where the responsibility lies with the policy makers reference (Opreana, 2010): some suggestions for policy makers can be derived from reading the “*World Competitiveness Yearbook*” (abbreviation WCY), that is the world’s most renowned and comprehensive annual report on the competitiveness of nations, ranking and analyzing how a nation’s environment creates and sustains the competitiveness of enterprises (Ogrean et al., 2010). The latest version of the “*World Competitiveness Yearbook*” (WCY) is now available at the following web address: <http://www.imd.org/research/publications/wcy/index.cfm>.

Reasoning on competitiveness, may be useful to report the “*Golden Rules of Competitiveness*” listed in the renowned document; in detail, the “*Golden Rules of Competitiveness*” listed in the “*World Competitiveness Yearbook*”, are: “(...)

- 1) *create a stable and predictable legislative environment;*
- 2) *work on a flexible and resilient economic structure;*
- 3) *invest in traditional and technological infrastructure;*
- 4) *promote private savings and domestic investment;*
- 5) *develop aggressiveness on the international markets as well as attractiveness for foreign direct investment;*
- 6) *focus on quality, speed and transparency in government and administration;*
- 7) *maintain a relationship between wage levels, productivity and taxation;*
- 8) *preserve the social fabric by reducing wage disparity and strengthening the middle class;*
- 9) *invest heavily in education, especially at the secondary level, and in the life-long training of the labour force;*
- 10) *balance the economies of proximity and globality to ensure substantial wealth creation, while preserving the value systems that citizens desire.*

(...)” (IMD, 2004).

If these rules - published in 2004 - had been followed by our policy makers, probably our conference – today – would have had another title.

#### 4. References

- Anselmi, L. (1996), *Forma giuridica e soggetto dominante nelle aziende pubbliche*, Bianchi, M. (ed.) *Le aziende degli enti locali*, Rimini: Maggioli.
- Boyer, R.; Drache, D. (1996), *States Against Markets: The Limits of Globalization*, London: Routledge.
- Carroll, A.B. (1979), A Three-Dimensional Conceptual Model of Corporate Social Performance, *Academy of Management Review*, Vol. 4 (4), p. 497-505.
- Catturi, G. (1968), *Problemi economico-aziendali di interesse pubblico e encicliche sociali dei Pontefici*, Florence: Le Monnier.
- Coda, V. (1985), *L'Economia aziendale: contenuti, specificità, ruolo*, Rome: CNR.
- Coda, V. (2006), *Economia aziendale: alla ricerca di punti di convergenza*, in *Appunti per un dibattito sulla cultura aziendale*, Rome: SIDREA.
- European Commission (EC) (2000) *Green Paper. Towards a European strategy for energy security*, Luxembourg: Office for Official Publications of the European Communities.
- European Commission (EC) (2011) *A renewed EU strategy 2011-14 for Corporate Social Responsibility*, Luxembourg: Office for Official Publications of the European Communities.
- Ferrero, G. (1968), *Istituzioni di economia di azienda*, Milan: Giuffrè.
- Ferrero, G. (1987), *Impresa e management*, Milan: Giuffrè.
- Institute for Management Development (IMD) (2004), *The World Competitiveness Yearbook* (WCY), Losanna, (CH): Institute for Management Development.
- National Board of Certified Public Accountants (Consiglio Nazionale dei Dottori Commercialisti e degli Esperti Contabili) (CNDCEC) (2009) *Il glossario economico ambientale e di sostenibilità*, Commissione Consultiva, *Consulenza Ambientale*, Rome: CNDCEC.
- Ogrea, C.; Herciu, M. (2010), *Globalization And The Dynamics Of Competitiveness – A Multilevel Bibliographical Study*, *Studies in Business and Economics*, Lucian Blaga University of Sibiu, Faculty of Economic Sciences, vol. 5(1), p. 126-138.
- Onida, P. (1947), *Le discipline economico – aziendali: oggetto e metodo*, Milan: Giuffrè.

- Opreana, A. (2010), The Long-Run Determinants Of Investment: A Dynamic Approach For The Future Economic Policies, *Studies in Business and Economics*, Lucian Blaga University of Sibiu, Faculty of Economic Sciences, vol. 5(3), p. 227-237.
- Puddu, L. (2001), *Ragioneria Pubblica. Il bilancio degli enti locali*, Milan: Giuffrè.
- Rodrik, D. (2011), *The Globalization Paradox: Democracy and the Future of the World Economy*, New York: Norton.
- Tileaga, C. (2010), Crisis: Effects In The Economic And Social Field, *Studies in Business and Economics*, Lucian Blaga University of Sibiu, Faculty of Economic Sciences, vol. 5(3), p. 309-314.
- World Commission on Environment and Development (WCED) (1987) *Our common future*, Oxford: Oxford University Press.
- Zappa, G. (1926), *Tendenze nuove negli studi di ragioneria*, Discorso inaugurale dell'anno accademico 1926-27 nel Regio Istituto Superiore di Scienze Economiche e Commerciali di Venezia.

# THE ACCOUNTING DUALISM – STRATEGIC BASIS OF THE FIRMS DURING THE ECONOMIC CRISES

POP (GRIGORESCU) Ioana Iuliana

Ph student, University "1 Decembrie 1918" Alba Iulia, Romania, Faculty of Sciences;  
cotutoring Lleida University, Spain, Faculty of Law and Economics;  
31 Major Street, Torrebellas, Lleida, Spain, [ioanaiuliana69@yahoo.es](mailto:ioanaiuliana69@yahoo.es)

## SUMMARY

*The present scientific article has as an objective demonstrating the necessity of the existence of a dualist accounting system in taking decisions at the management's level and to expose different techniques and strategies which can be used by the management of the firms in the conditions of the economic crises.*

*In the article it is explained which are the objectives of the management during the economic crises and the steps which are to be taken – from the evaluation of the actual economic crises up to the taking the most adequate decisions, which allow the firm to pass over this period.*

**KEY WORDS:** economic crises, dualist accounting, the management's objectives, financial situation's diagnoses, methods to optimize the efficacy.

**COD JEL:** G01, L25, M11

## 1. INTRODUCTION

It is not easy to act during the crisis time. A bad decision taken by the management of the firms can be damaging to the firms, and still during this period it is the moment of the big opportunities.

This research proposes itself demonstrating the necessities of an accounting dualist system in order to take decisions at the management's level and to expose different strategies-techniques which can be used by the management of the firms in the conditions of the actual economic crises.

The method of research is a qualitative one. It has been realised a synthesis of the indicators financial-economic proper to the financial accounting and a synthesis of the techniques and strategies of the management accounting which can be used by the management of the firms in the conditions of the actual economic crises.

## 2. THE ACCOUNTING DUALISM

The dualism represents the conception which considers as principles of existence two different and irreducible elements. It manifests especially in the continental Europe and according to this conception the accounting system comprises two subsystems: the financial accounting and the management accounting. These are two types of different accountings, with final different users, but which have an

"interdependence relation" in the way that they "complete each other informational, as instruments of the decisional process" (Tabără, Briciu, 2012).

The financial accounting "is based on unitary norms of organising and leadership, compulsory to all the patrimonial units" (Tabără, Briciu, 2012), supplying public information destined to the external users –clients, suppliers, financial institutions, credit institutions, shareholders, etc. "The financial information that are elaborated by the firm offer transparency and viability on managing the firm and more over a better image and reputation, but they also bring additional costs of elaboration and sometimes, an inconvenient because they bring into light data that the competitors can use in their favour" (Gallizo Larraz, 2006).

The information from the financial accounting are used inside the management accounting, by the managers of the firm, in order to produce confidential information, destined to the internal usage of the firm, such as calculating the production costs, determining different bottom lines, of the basis of evaluation of the patrimonial elements of the analytic results on products or activities, of capitalisation, elaboration and budget control.

Therefore, the need of different information of the different types of users determines "two representations of the same realities – an internal one and an external one" (Tabără, Briciu, 2012). The way of organising the factories' accounting system into two individual informatics circuits, or in a single one, has been a discussion scientifically point since the beginning of the XX th century and it still exists today.

"This recent opposition between the general accounting and the analytical one, this dualism, deserves to be analysed: firstly because the analytical accounting takes several information from the general accounting; then because elaborating a balance sheet and of an result account in the general accounting asks for costs calculations which come mainly from the analytical accounting and the viability of some information which it contains depends on its existence or inexistence"....."It is possible that the debate to be crossed by the new technology and mostly by the integrated programmes, as they allow the independence of the two types of accounting, in interdependence" (Colasse, 2011).

We consider that it is necessary this separation of the two accounting systems, as the supplied information of financial accounting refers to the passed activity and they are public information, being comprised in the synthesis documents specified by the International Standards of Financial Report, and the information generated by the management accounting are confidential, being necessary to the managers in order to plan the future activity of the firm and taking strategic decisions of it. Therefore the financial accounting has a passive role of information, and the management accounting has an active role of analysing of the financial information and looking for new strategies, of action directions.

### **3. THE OBJECTIVES OF THE MANAGEMENT OF THE FIRMS DURING THE ECONOMIC CRISES**

During the economic crises it is extremely important getting the information in real time and also a correct and complete image on the situation of the firm. The crises periods are characterised in general at the firms' level by reducing the sales, uncasing in time the bills, fact which influences negatively the benefits of the firms and the level of cash.

The human behaviour is a very strange one. For example, when the price of the houses rises, people spend more, have the feeling of wellness-their home is more expensive. When the price of their house drops, they feel poorer and reduce their expenses. The same thing happens with the firms during the economic crises, when they manifest a pessimist behaviour, which most of the times is unjustified.

The management has to secure the vitality and strength of the organisation in front of the change. During the economic crises the main objective of the management of the firm has to be the assurance of the balance or the optimum function of the three major points:

- guarantee of the necessary cash to develop the activity;
- the position on an acceptable level to the risk;
- obtaining maximum profitability;

Most of the times in these periods are being taken unpopular measures, the expenses are reduced, but this can be the moment in which the true leaders can demonstrate their abilities- the ability of convincing, the internal and external communication, obtaining the consensus, team work, the ability of negotiation with the costumers, suppliers and employees. The most important thing is not to panic and to realise a rational analyses of the situation.

The steps which are to be followed are:

- realising a diagnoses of the financial situation of the firm;
- deciding the future actions as to improve the financial situation;
- Adopting optimisation methods for efficacy and profitability.

#### **3.1. SWOT Analyses**

In order to realise a diagnoses of the real situation in which is the firm the management will realise a SWOT analyses. This analyses will take into consideration both qualitative factors and quantitative ones which influence its activity.

From a qualitative point of view questions will be asked connected to WHO the owners of the firm are or WHO the managers are and the employees and which are the strong points and the weak points which they generate.

Secondly questions will be asked connected to WHAT kind of activity the firm develops, in WHAT sector activates, WHAT produces or WHAT kind of competitors has and which are the threats and observed opportunities. We must take into consideration the fact that the crisis has not affected all the economic sectors equally. The most affected sectors are the construction, the cars, the banks and trade in

general, but there are sectors in Europe which are developing, such as the private sanitary sector, the service sector for the third age, the renewable energy, telecommunications, telemarketing.

Finally the management will orient its attention on HOW the firm functions taking into consideration the given conditions.

The quantity factors are patrimonial and financial. It will pass towards a financial analysis of the firm, based on the Balance sheet and the Account of the profit and lost, following this way the identification of the strong and weak points, of the opportunities and threats. In this way in order to obtain a complete image on the situation in which the firm is it will calculate a series of economic and financial factors, by the help with it will be analysed: the financial structure of the actives of the society, the money on the short time of the firm, the way of handling the actives, cashing and payments, the ability of the firm to generate incomes, the profitability of the firm or the self financing ability.

#### **3.1.1. The financial structure of the society assets**

To its analyses there can be calculated the following indicators:

- The financial stability instalment (represents the report between the permanent capital / totally passive)  $\times 100$  or (the own capital + debts on medium and long term/ total passive) $\times 100$  and it reflects the way in which the financial sources what remain at the firm's disposal for a period longer than a year in the total of the covering sources of the economic means.

- The financial indebt instalment ( represents the report between total debts / total passive  $\times 100$  ) and it reflects the weighting of the financial sources attracted in the total of the passives of the society. The subunit value of this indicator indicates a certain financial independence.

#### **3.1.2. The solvent of the company on a short time can be appreciated calculating:**

- The instalment of the global autonomy (it is calculated as a report between the proper capital/ total passive  $\times 100$ ) and the solvability of the firm is good if the value of the report is over 30%.

- The global liquidity (current actives/ current debts) measures the capacity of the firm to pay the debts in a short time using the actives from the balance sheet in a short time. The perfect value is between 1.5 and 2.5. To detail we can calculate too:

- the reduced liquidity (current actives/ stocks/ current debts  $\times 100$ ) measures the capacity of the firm to pay the debts in a short time using the actives with the highest level of liquidity from the balance sheet, the perfect value being 1.

**3.1.3. In order to manage the cash and payment terms** it is analysed the relation between the current active and the current passive of the balance sheet, the indicators which can be calculated being:

- The revolving fund which is calculated as a difference between the permanent capital and the net fixed actives and express the statement of realising the financial balance on a long time and its contribution to the financial balance on a short time. This indicator is a synthesis of the current interests and the future ones of the firms. To a fair appreciation can be calculated too:

- The necessary revolving fund which comes from the relation (actives on a short time/ passives on a short time) or (Stocks + Receivables) – (current exploiting debts). If the result is positive it indicates an unfavourable gap between the liquidity of the stocks and the receivables and the retention of the exploiting debts. If the result is negative it indicates an extra source over the needs of the unit, which can be a favourable situation in the case of accelerating the spinning speed of the stocks, or unfavourable if it can not assure the necessary stocks.

- The net treasury (cash-flow) it is calculated as a difference between the revolving fund and the necessary revolving fund. The positive result expresses an efficient economic activity and it creates the possibility of investing, which can strengthen the position of the firm on the market, and a negative result indicates a financial imbalance which can be covered by new credits.

#### **3.1.4. The way of managing of the actives can be appreciated calculating:**

- The spinning speed of the costumers-debits (Sold costumers  $\times 365$  /business figure) allows the evaluation of the performance of the firms on what the relation with the beneficiary, having an extremely importance in the case of the firms which realise credit sales. (Commercial ones).

- The spinning speed of the fixed actives by the business figure (the business figure / fixed actives) evaluates the efficacy of the management of the economic agent in what the using of these patrimonial elements is concerned in order to obtain incomes, and the recommended value higher than 1 as possible.

- The spinning speed of the total actives (business figure / Total actives) is an indicator which reflects the efficiency of using the actives found in the estate of an economic agent.

**3.1.5. The ability of generating benefits** is expressed by the help of the commercial margin rate which represents the result of the report between the net profit and total incomes  $\times 100$ .



**3.1.6. Creating value and profitability** to the firm results from calculating and analysing the following indicators:

- Financial profitability rate Rata (it is calculated as a report between the net profit/ the own capital X100) marks the yield of the own capital, respectively of the placement made by the investors of a certain firm by buying the shares of another firm. The registered value by this indicator must be higher than 5% this way can be stated the fact that activity developed inside the society was efficient from the point of view of valuing the own capital.

- Rate value of the advanced capital is being calculated as a report between (the current result/ fixed actives + circulating actives) x100.

**3.1.7. The self financing capacity** is the indicator which reflects the financial potential of economic developing of the firms, meaning the financial necessary source, which is obtained from the firm's activity after eliminating the payable expenses from cashable incomes. The profit is an important source of financing, of developing the activity, paying the participating of the shareholders by the means of dividends and the current needs and the firm's future ones.

As a result of the complete analyses of the firm it will be obtained a clear and complete image of it. A highest attention will be paid to the threats and the weak points will be corrected. At the same time the strong points will be taken into consideration and they will take advantage of the found opportunities. This type of complete analyses should be made periodically, but this is absolutely necessary during the economic crises. Correcting the weak points will help the firm to overpass the critical period of economic crises. Finally the firm will take measures which will allow:

- To obtain a strong financial structure, with adequate levels of liquidity and risks;
- To improve efficacy, as to obtain a better profitability.

### **3.2. Obtaining a strong financial situation**

The manager has to concentrate its attention towards things really important- products, costumers, employees. If he is stressed by the idea that he will not be able to pay the debts in due time, he will lose sight what really generates long time competitively. Therefore the manager will make sure that the Financial Situations are CORRECT and they express the real situation of the firm. Then he will concentrate on some important aspects.

It will check which the relation between the net estate is, the permanent capital and debts as well.

In order to have a healthy financial structure it is extremely important that the net estate to represent an important part of the investment.

It also has to be checked the situation of the firm's solvent on a short time, meaning the relation between the current active and the current passive. The loans on a short time must be paid without problems from the current actives. Contrary the firm has to increase the capital from internal incomes of the owners and shareholders, getting subventions or active sales. The problem is that during the crises time it is not easy to sell at a good price. If any of the previous measures does not succeed the loan must be renegotiated, and the part that can not be paid in a short time to be passed on a long time payment contract.

While the position to the risk is concerned we can say that the derived financial instruments can help to the prevention of the risks connected to the different types of exchanges or interests. It will not be lost from the sight the fact that they can generate important problems when they are used for speculation. It will be used those financial instruments whose way of functioning has been clearly understood and for which are known the consequences which it produces.

### **3.3. Methods of optimising the efficacy and productivity**

The next step is the one of maximising the efficacy of the firm's activity. In order to do this there are more approaches, the contribution of the firm's management being fundamental from this perspective. Now that it has all the necessary information, and the financial structure is a healthy one he has to act in order to raise the profitability. Here comes into stage the role of the management accounting.

#### **2.3.1. Methods related to the data from the balance sheet**

In order to manage to reduce the costs the manager has to obtain a maximum efficacy in using the actives. Therefore can be taken measures for:

- Reducing non current actives, loaning instead of buying, or selling the actives which are not needed.

- Reducing the stocks – using methods such as” Just in time”, producing during the transport and reducing the deposit space. ”this method is a means of eliminating the malfunction and to reduce the

waste from the production systems, fact that will lead to a better stage of the global performance.” (Tabără, Briciu, 2012).

- Reducing the production costs, meaning the production cycles, reducing the period between the moment in which are bought the prime staff and the moment in which there is a selling and cashing from the costumers. It is about adopting a correlation strategy of the period of transformation of the circulated actives into liquidities with the terms of paying the debts by the suppliers. This is a technique of improving the relation with the treasury in the way of negotiation with the suppliers with a 50 days payment, for example, combined with the reducing of the production cost, so that the product to be sold and posted in the 20<sup>th</sup> day for example, and the cashing from the costumer to be made in a week's time. This way it is obtained a cashing in the 27<sup>th</sup> day, 23 days sooner than paying at the supplier.

Buying prime staff	Selling product	Cashing costumers	Payment suppliers
0	20	27	50

- Reducing the balances of the costumer accounts by the "credit management" techniques;
- Managing the treasury as reducing or minimising the negative balances.

### 3.3.2. Methods related to the data from the account profit and losses

During the economic crises in order to raise or maintain the level of sales it is necessary to reduce of the expenses which can be obtained in different ways:

- Transforming the expenses in cashing. This method is used for example by the airlines "law cost" which eliminate the free food served during the flight and replace it with product selling.

- Reducing the expenses "by law". This method is not always recommended because it does not base on rational analyses of the expenses. It is simply communicated to the cost centre responsible the percent they have to reduce. Each responsible has to find the proper way to reduce it up to an established datum.

- Reducing the expenses with the materials. In order to reach this objective it can be re-planned the need for materials, it can be reduced some components, it can be finalised some long term contracts with the suppliers or cooperation with other firms. During the crises it can be negotiated or re-negotiated in order to obtain important sales, because the suppliers are interested to sale and they also want to have constant costumers. It is advisable concentrating on few but very good suppliers and having contracts on a long term with them.

- Reducing the procedures and useless operations. It is about analysing the production process and reducing those operations the operators do and which are not absolutely necessary. It is about the identification and standardise some methods which with less operations and moves to give the same result or a better one. "it is about simplifying the processes, using all the skills of the people and new technology" (Tabără, Briciu, 2012).

- Transforming the fixed expenses into variable ones to obtain a more flexible structure. For example, the externalisation of some services or operations such as logistics can raise the productivity and efficacy and it can generate substantial savings.

- Reusing or selling the tailings or waist products. It will be tried a transformation of the transport expenses or to destroy the tailings or waist products into a cashing that results from their sale.

- The organization chart of the firm can be a source of efficiency or inefficiency. In some cases it is better to be split into cost or profit centres, to raise the responsibility of the management of the centres. Before making any change it is necessary to realise an evaluation in order to see what is more advantageous for the firm; a decentralisation or a centralisation of functions.

- Some firms use the concept of "excellence centre". It is about the multinational firms, which have different branches or centres in different countries or areas and which concentrates each activity in the centre that executes best the activity. For example, the marketing department can be fixed in a centre and the accounting in another centre.

- It can be asked the help of a specialist in reducing the costs. These firms cash generally a percent of the obtained results.

- Using the new technology, of the internet for example, can be useful in reducing the expenses by reducing the personnel or some operations of the production process.

- Reducing the costs by the method of continually improvement "Total quality management". It is the case of IKEA, which has fixed as an objective the continuous improvement. "

We intend to do the things better, to simplify things, to do things more efficient and with efficient expenses. We try to maintain our prices at the most low possible level, to be accessible to most of the buyers". The secret of this model is the low prices, simplicity in the process of buying and own models. A weak point would be the low level of the costumers' service – they have few salespersons, the client transports himself the merchandise and assemblies, but these inconveniences are proportional to the low level of the price. It can be used the technique of the "objective price". The objective consists in touching the target costs." (Tabără, Briciu, 2012). This consists in calculating the maximum price of a product, before being projected. The starting point is the sale price that the costumers would pay for the product and it is projected a product with a lower price than the selling price. For this it can externalise a part of the processes that, it can be negotiated with the suppliers the price of the prime materials, end contracts on a long time, etc. "the target costs are instruments of the management accounting in the conditions in which the accountants develop an activity as important as the other specialists from the firm...they help to fix the future objectives, the strategic planning" (Tabără, Briciu, 2012).

- Using the ABC system or the Method of the Costs Based on Activities to eliminate those activities that do not bring any value. This way the method" assures a more efficient management of the firm" (Tabără, Briciu, 2012) and allows" the analyses of the reducing of the costs or rationalising the production by reducing the number of components or limiting the specific series" (Tabără, Briciu, 2012).

- Optimising the costs using the technique of the Basic Budget 0 which helps eliminating the prodigality. By the help of this method, when the budget is being made for the following period they start from 0, ignoring the structure of the existing costs up to that moment. "It leads to a restructure of the factory, without taking into consideration the past, retaining only the useful methods" (Tabără, Briciu, 2012). This method comes in contrast with the "traditional vision, in which the establishing the budget for the following period being the tendency to start from the existent level in the previous year"(Briciu, 2006). Then main objectives of this method are" reducing the level of the expenses generated by the administration, getting all the available resources, planning, favouring the exchanges inside the organisation" (Tabără, Briciu, 2012).

To conclude, a healthy financial situation generates liquidities. An adequate business strategy, based on a continuous improvement of the efficacy generates benefits and therefore liquidities, and all these methods determines a better functioning of the firm on a long time.

If the firm has liquidities it is the moment to buy competitive firms at a very good price and also can be the moment to innovate in order to magnify the price on the market.

We can notice that as the types of accounting work separately or interact in order to reach the same objective, the functioning of the firm on a long term in the conditions of efficacy and profitability. The financial accounting makes the Annual Financial Situations based on pre established standards (IFRS), offering information to all the categories of interested users. These financial situations contain the necessary data to calculate the financial economic indicators which help to diagnose the real situation in which the firm is at a certain time. These data are necessary to the management accounting, to the manager, who will evaluate the strong and the weak points, the opportunities and threats acting mainly to obtain a healthy financial structure, and then it will be applied the optimisation of the efficacy and profitability of the firm. These methods, strategies are proper to the management accounting and the data are confidential which help to getting the competitive advantage, mostly during the period of economic crises.

#### 4. CONCLUSIONS

On this article it could be noticed how the two types of accounting- financial and management- interact and bring their contribution to analysing the real situation of the firm and fundament the future strategy of it during the period of economic crises. We agree with the dualist concept and we consider that it is necessary the separation of the two systems of accounting. It is indeed about a double representation of the same reality, but we consider it legitimate, considering the fact that it is based on the same data, meaning the ones offered by the financial accounting. The problem is that the analyses must be made by the management accounting, together with the manager's knowledge can bring the competitive advantage so necessary during the crises time.

At the firm's level, the periods of economic crises complicate even more the possibilities of action. The managers must have the necessary knowledge, information in due time and initiative.

During the crises time the manager will evaluate the actual situation and the perspectives of the firm, in order to take the most adequate decisions, which will allow the firm to get over this period. With

the help of a correct diagnoses, it will be taken those measures which will correct the weak points or face the threats and take advantage of the strong points and opportunities, so that the firm to become a motor generator of benefits.

## 5.REFERENCES

- Amat Oriol, Euforia y pánico. Aprendiendo de las burbujas y otras crisis, Ediciones Profit, Barcelona, 2008
- Briciu Sorin, Managerial Accounting.Theoretical and practical aspects , Economic Publishing House, Bucharest, 2006
- Burja Camelia, The degree of indebt and economic performance, Tribuna Economic Magazine, no.3, 2006.
- Bernard Colasse, Introduction to accounting, Tipo Moldova Publishing House, Iasi, 2011
- Căruntu Constantin, Lăpăduși Mihaela Loredana, Economic-financial analyses, Academia Brâncuși Publishing House, Târgu Jiu, 2010, <http://www.scribd.com/doc/79576476/economic-financial> analyses
- Jose Luis Gallizo Larraz, The social responsibility and environmental information of the firm, The article "An Information on the social responsibility of the firm, something more than a fashion", The Spanish Association of Accounting and Firm Administration (AECA), Madrid, 2006
- Neculai Tabără, Sorin Briciu, News and Perspectives in Accounting and Management Controll, Publishing House Tipo Moldova, Iași, 2012

# GENDER DIFFERENCES IN LEADERSHIP

POPESCU Silvia

Associate Professor, Ph.D, Economics Faculty " Titu Maiorescu " University, Bucharest,Romania  
e-mail:silvipopescu@gmail.com.

## Abstract

*This work presents an overview of the research on gender differences in leadership, examines the impact of sex stereotyping, looks at the organizational effects of various types of leadership, and argues for the acceptance of a diversity of non gender linked leadership styles. The topic of gender differences in leadership style has been of great interest to researchers in the fields of psychology, management, and sociology, especially in recent years, as women have begun to assume more leadership positions. The field of gender differences in leadership styles is an area that is still full of ambiguity and paradox*

**Key words:** leadership styles, gender differences, androgynous orientation, gender stereotypical behavior  
**Clasificarea JEL:**M12

## 1. Introduction

The purpose of this article is to present an overview of the topic of gender differences in leadership style and to provide a synthesis of the voluminous amount of material that has been written on the topic, primarily in the literature of management, psychology, sociology, and political science. First a brief overview of the way women have been viewed as leaders will be presented, and the impact of sex-role stereotyping will be discussed. The next section will provide a historical perspective on how thinking about gender differences has changed over the past century. Here some of the most important literature on the subject will be reviewed. Then the effects of various leadership styles on organizations will be examined, and the concept of the androgynous leader will be discussed. Finally, a concluding section will focus upon the changes in thinking about gender and leadership that will be necessary to bring about "reinvented" organizations. There will be no specific references to libraries and librarians in this article because there has not been a great deal of research focusing on leadership styles in the library profession. Furthermore, there is no reason to think that gender differences in leadership styles in libraries would be any different from those found in other types of organizations. Two points of clarification are necessary at the beginning. First, the focus will not be on men and women in biological terms, but on the social roles of the genders in contemporary society since these roles are determined primarily by culture. Second, this article has been derived from the current writings on gender differences in leadership, and because this literature usually looks at this phenomenon in an organizational setting, there is an overlap in the way that many researchers use the terms *leader* and *manager*. Although there are some commonly accepted differences between leaders and managers for the sake of discussion the terms are used synonymously throughout this article. Most experts agree, that women share many views and experiences, and some generalizations are warranted). Nonetheless, the reader should always keep in mind that there are many exceptions to the notion of typical male and female leadership behavior. The accommodation of different leadership styles is an increasingly important issue for today's organizations. As women become a proportionately larger part of the work force, one of the greatest challenges for organizations will be to assimilate a more diverse labor force into higher level management roles. The presence of a so-called "glass ceiling" is said to have inhibited women from advancing to the highest level of management in most organizations. (The glass ceiling also affects minorities in organizations. This article, however, focuses only on gender differences in leadership.) This glass ceiling is an almost invisible barrier that prevents ambitious women from moving up in the organizational hierarchy. Although in the past two decades women have made significant progress into lower and middle management positions, there is still a dearth of women in the most senior management positions.

## 2. Literature review

Over the centuries, femininity has been stereotyped as dependent, submissive and conforming, and hence women have been seen as lacking in leadership qualities ....The male bias is reflected in the false conception of leadership as mere command or control. As leadership comes properly to be seen as a process of leaders engaging and mobilizing the human needs of followers, women will be more readily recognized as leaders and men will change their own leadership styles (Burns, 1978, p. 50). For the past

three decades, gender differences in leadership styles have been the most intensely studied topics in the field of leadership. Are there inherent differences in the way men and women function as leaders and, if so, are these differences gender linked? This question has commanded attention because researchers have been trying to provide an explanation about why there have been so few women leaders. Even though women have become an increasingly large proportion of the work force, they still do not hold a proportionate of the top administrative positions. Most of the gender difference research has focused upon whether women's comparative lack of success in attaining high positions could somehow be related to differences in their leadership style. It has examined the personality characteristics and behavior patterns of women as possible explanations for their lower status. A recent Department of Labor study (Rivers, 1991) reports that the glass ceiling effect is a real one and not just a figment of feminist imagination. It is clear that women have found it more difficult to move up the organizational ladder. But is it a difference in leadership styles that has impeded women's progress?

The reader who turns to the vast body of literature on gender differences to find the answer to this question will likely be left in a state of confusion. The studies report a number of contradictory findings. There is basic disagreement focusing upon the primary question being examined-i.e., is there really a difference between the leadership styles of males and females? Some authors argue strongly that there are differences, while others assert just as strongly that there are none. (For authors asserting there are differences, see for example, Statham [1987] and Winther and Green [1987]. For those asserting no differences, see for example Powell [1990] and Donnell and Hall [1980]. Before one can fully understand the contemporary thinking on gender differences in leadership, it is helpful to survey, at least briefly, the changes that have taken place in our thinking about leadership over the past century. It is telling that the topic of gender differences was completely ignored in the early writings on leadership. The original conception of leadership was founded on the assumption that all leaders possessed certain universal characteristics that made them leaders. These traits were largely inborn, universal, and fixed (Hollander & Offermann, 1990). Since this conception of leadership is often called the "Great Man Theory of Leadership," it should not, perhaps, be surprising that gender differences were not of interest. The concept of a woman as a leader would have been completely alien to the nineteenth and early twentieth century proponents of the trait theory of leadership. Much of the early research on gender differences was done in the field of psychology. Understandably, the focus of the psychological research has been on the personality characteristics and behavior patterns of women as explanations for their low job status (Riger & Galligan, 1980). Person-centered variables, rather than situational factors or environmental factors external to the individual, were identified as explanatory factors. This focus led to a concentration on changing the person, or, as Riger and Galligan write: "[W]hen person-centered variables become invested with causal significance, people become the targets, sometimes inappropriately, of ameliorative efforts" (p. 902). Most of the early popular literature on women and leadership, especially in the field of management, reflected this point of view. For instance, Hennig and Jardim (1977) and Harragan (1977) focused on women's characteristics and job behaviors. These writers suggested that, if women wanted to succeed, they needed to learn to act more like men and to learn to play those male games "their mothers never taught them." It was asserted that women had not been socialized in ways that allowed them to compete on even terms with men, and the remedy lay in having women develop new skills that would allow them to succeed in organizational leadership. Hennig and Jardim compared the business world to a foreign country and advised women to learn the language and the customs of this male realm.

This type of literature told women how to change themselves rather than their places of work. Gradually, however, interest grew in the situational variables that might explain the lower status of women.

A review article in *Psychological Bulletin* (Eagly & Johnson, 1990) provides the most recent comprehensive look at the differences in leadership styles of males and females. The authors present a meta-analysis of a large amount of the research that has been done on the topic. In their literature review and background section, Eagly and Johnson echo many of the same themes reported earlier. In general, they found that authors with extensive experience in organizations who write nontechnical books for general audiences and the general public are the proponents of sex differences in leadership styles. These nontechnical writings of ten report gender stereotypical leadership styles, with males preferring competitiveness, hierarchical authority, and high control for the leader, and women preferring cooperation, collaboration between managers and subordinates, and lower control for leaders.

Nonetheless, some differences were found even in the organizational settings. The overall trends showed that women were more concerned with both maintenance of interpersonal relationships and task accomplishment-a finding that both confirms and refutes the stereotypical view of women as leaders

(conventional wisdom has it that women are more concerned with relationships than with task accomplishment). The strongest difference found was that women tended to adopt a more democratic or participative style, and men tended to adopt a more autocratic or directive style. Eagly and Johnson provide two possible explanations for this difference. First, women who have managed to succeed as leaders might have more highly developed interpersonal skills. The other explanation is that women are not accepted as readily as men as leaders and, as a result, have to allow input into their decision making. "Thus proceeding in a participative and collaborative mode may enable many female leaders to win acceptance from others, gain self-confidence, and thereby be effective. Because men are not so constrained by attitudinal bias, they are freer to lead in an autocratic and nonparticipative manner should they so desire" (p. 248).

In conclusion, Eagly and Johnson claim that both views need to be revised: the one accepted by social scientists that men and women lead in the same way and the one proclaimed in popular management books that men and women are different. Their review established a more complex set of findings. It must be remembered that this meta-analytic research did not produce evidence about whether men's or women's leadership styles are more effective. It probably depends on the situation. "No doubt a relatively democratic style enhances a leader's effectiveness under some circumstances, and a relatively autocratic style enhances it under some other circumstances" (p.249). The authors point out, however, that recent management writings have stressed the importance of moving away from hierarchical autocratic management and toward the more democratic and participative leadership styles that the meta-analysis suggests are more prevalent among women than men.

Eagly and Johnson's results are corroborated by other research. In a study not included in Eagly and Johnson's meta-analysis, Statham (1987) also found evidence of two sex-differentiated management styles. Statham reports that women used a more task-engrossed and person-invested style, while men use a more image-engrossed and autonomy-invested style. Statham does not argue that one approach is superior to the other; the point emphasized is simply that the two approaches are different, and these differences undoubtedly cause tremendous misunderstandings between men and women in the workplace. In a study that focused on gender differences in communication, Tannen (1990) provides a possible explanation of why these two different approaches have developed. Tannen points out that men and women have different experiences while growing up, and, as a result, have learned to value different things. Men are taught to prize status, independence, and individual power, while women tend to value connection, interdependence, and the power of community. These different values lead men and women to behave in different ways. The resulting differences in the communication styles of men and women can also cause misunderstanding in the workplace. Again, the dangers of overgeneralization must be emphasized. Some women have become leaders and instead of bringing a "softer" approach-based on supposedly inherent female characteristics of submissiveness, passivity, and caring-they have demonstrated that women can be competitive and assertive, in some cases trying to be more "male" than the males (Hearn & Parkin, 1986-87). On the other hand, some men have exhibited the softer approach traditionally associated with women. There is a real danger of encouraging new stereotypes when asserting that there are different gender-linked leadership styles. But it does seem safe to say that the typical male and typical female at this point in time practice distinct leadership styles. What needs to be explored is whether either of these two styles is more functional in today's organizations or whether a blend of both might be the best solution.

### **3. Paper Content**

#### **3.1. Women as leaders**

Although more women are assuming leadership roles today than before, the notion of a woman as a leader is still foreign to many individuals, male and female alike. Changes in perception are difficult to achieve because the traditional norms of leadership are firmly entrenched. In our society, as in most others, leaders have customarily been males. In the past, leadership opportunities for women tended to be limited to all female organizations such as sororities, convents, and female institutions of education-but even there the presidents of women's colleges were almost always men. From this phenomenon the generalization was made that leadership implies maleness and that, since women were not men, they lacked the qualities that are necessary to be leaders. The assumption that leadership equates with

maleness *is* deeply embedded in both our thinking and language. Leaders are of ten described with adjectives such as “competitive,” “aggressive,” or “dominant,” which are typically associated with masculinity. A female leader is frequently regarded as an aberration and “women who become leaders are of ten offered the presumed accolade of being described as being like men” (Hearn & Parkin, 1986-87, p. 38).

Despite the societal mandates used to increase the number of women in leadership positions (e.g., various legal measures such as affirmative action), the traditional stereotypes remain. These stereotypes still exert a powerful influence and are at least partially to blame both for women’s difficulty in attaining leadership positions and for society’s struggle to accept them. Because women do not fit the stereotypical leader mold, those who want to be leaders usually need to be extremely well qualified, have proven records of accomplishments, and be over prepared for their positions. Once these positions are attained, women are often expected to “behave just like their male counterparts rather than enhancing their roles with the new and varied talents and fresh perspectives they might bring” (Shavlik & Touchton, 1988, p. 101).

The female sex role stereotype labels women as less competent and warmer emotionally than men, but the stereotype of the effective manager matches the masculine stereotype of competence, toughness, and lacking in warmth

These gender stereotypes, based on historical roles, of ten lead to a substantial bias against women and present a major problem for those trying to function as leaders in organizations. As Bass (1981) states:

*Stereotypes have their effects on behavior. We expect women to be more submissive, so we have trouble taking orders from women, no matter what they are like individually. Women leaders themselves are in conflict when facing divergence in what is expected from them in their roles as managers and in their roles as females, but do these stereotypes reflect reality?*  
(p. 496)

### **3.2.The impact of leadership on organizations**

In the past, most women who succeeded in becoming leaders did so by adopting the masculine style of leadership. There are now indications that women are beginning to make an impact on organizations using their own style of leadership. Rosener (1990) has studied what she calls the second generation of managerial women. The first generation of female managers had to adhere to the same rules of conduct for success that applied to men. This new generation is making its way “not by adopting the style and habits that have proved successful for men but by . . . drawing on what is unique to their socialization as women and creating a different path to the top” (pp. 119-20). Most of these women are working in medium- size organizations that have experienced fast growth and rapid change, organizations that have been most hospitable to women and nontraditional management styles.

Rosener (1990) attributes the behaviors of these women to two things-their socialization and their career paths. The average age of the women in the study was fifty-one, which means that they had life experiences that had been affected because of gender. As Rosener states, until the 1960s, men and women received vastly different messages about what was expected of them. While men were supposed to be competitive, tough, decisive, and in control, women were allowed to be cooperative, emotional, and supportive. This is one reason that the women of today are more likely to be transformational leaders. The other reason is that women’s career experiences have differed from those of men who were more likely to have held staff, rather than line, positions. Lacking formal authority over others, these women had to find other ways to accomplish their goals.

Rosener contrasts the men’s command and control style with the different style exhibited by the women and argues for an increase in diversity in acceptable managerial behavior. She cautions against linking transformational leadership to being female; women are capable of making their way up the corporate ladder using traditional management style, and some men are transformational leaders. She also fears that companies that perceive transformational leadership as “feminine” will automatically resist it.

Rosener argues for acceptance of this new type of leadership style because she sees it as working best in today’s workplaces with today’s workers. She is just one of the authors who point out that the type of leadership style usually linked to women is also the type of leadership style that is most congruent with the changes going on in the organizations of today.



Helgensen (1990) describes the innovative organizational structures and strategies of a number of successful women leaders. She describes the organizations shaped by these women as being more like “webs of inclusion” than hierarchies of exclusion, and stresses the advantages found in this type of organization for information sharing, since there are more points of connection in a web than in a hierarchy, where the communication flow is usually vertical. She has written that “in the Information Age, the value of the old pyramid is being questioned as being too bureaucratic, lumbering and muscle-bound for a fast-changing global economy and far too expensive as well” (quoted in Eisler, 1991, p. 11). Many other management experts have pointed out that today’s organizations need to be transformed if they are to be successful in the future. There has been much written about the demand for new managerial abilities, and there is a widely shared perception that the vertical skills of command and control need to be supplemented, or in some cases replaced, by a set of skills that includes negotiation, bargaining, and mediation. In addition, many authors extol the virtues of a more humanized workplace.

The changes that are occurring in the workplace are, according to Riane Eisler (1991), reflections of a larger societal transformation. Eisler describes two types of social organization models-i.e., the dominator and the partnership models. Dominator societies are marked by rigid male dominance, a generally hierarchic and authoritarian social structure, and a high degree of institutionalized violence. The partnership model is marked by more equal partnership between women and men, less institutionalized violence, and a more democratic or egalitarian social structure. She argues that society is being transformed from the dominator to the partnership model, and that the “contemporary re-emergence of a ‘softer’ or, in terms of dominator stereotypes, more ‘feminine’ style of leadership and governing ethos-particularly in the world of business and economics” (p. 17)-can best be understood in light of this shift between the two models.

According to Eisler, the modern workplace was patterned to conform to the requirements of the dominator model-hence, its hierarchic and authoritarian characteristics and its top-down chain of command. In this type of organization, women were under tremendous internal and external pressures to behave like men if they wanted to succeed. The author asserts that the workplace is evolving into a more humane, people centered place where the female style of leadership will be fully at home. It is the situational variables that have kept women from ascending to top leadership in modern organizations, the situational variables that have worked against them in the past will work for them if organizations continue their evolution into places where their style of leadership will fit nicely into the prevailing ethos.

Thus it seems that experts’ views of gender differences in leadership style have taken some curious turns over the past few decades. Originally, there was the idea that men and women had different leadership styles based on inherent sex linked characteristics. Then the view became that, even though there were differences, women could learn to succeed in organizations by being more like men. All along, however, there were social scientists who were asserting that there were few differences in male and female styles, and that once women became leaders they would act in the same way as men. Now the pendulum has swung once more, and there is again a perception that there are differences in the leadership styles of men and women. This time, however, assertions are made that these differences will work to the advantage of women because the qualities associated with their management style is what is needed today to make organizations more effective.

*In some respects, it seems that women managers may be better prepared to cope with the challenges of the future than many traditional male leaders who succeeded in the past. For many of the characteristics being touted as critical for future success-concern for people, interpersonal skills, intuitive management and creative problem solving-are qualities that women as a group are encouraged to develop and rely on throughout their lives.*

It is not an accident or coincidence that women are breaking into the executive market just when the key to success in executive work is working- with-each-other people skills. The controversy over whether women’s styles of leadership are better than men’s or whether there’s any difference at all is merely a signal that all leadership is becoming more feminized simply because it makes good business sense.

### **3.3.The androgynus leader**

Does this interest in the strengths women can bring to leadership mean we have come back to that notion of the “androgynous” leader or manager? Androgyny is an amalgam of male and female styles. The androgynous leader blends the characteristics typically associated with males- such as dominance,

assertiveness, and competitiveness-with those typically associated with females-such as cooperativeness and a concern for people.

On the surface, the androgynous manager concept is an attractive one, and there are still a number of advocates of this style of leadership. However, the androgynous manager concept is not a panacea and, indeed, has many pitfalls. To advocate this style as the “ideal” oversimplifies things. If there is anything we have learned from research in leadership, it is that the trait theory is not a particularly useful one. Leadership skills need to be varied to meet various tasks and environments. There is no one right style and no one right set of “traits” even if they are androgynous. Although androgyny is appealing because it incorporates what are viewed as the strengths of both males and females, it also perpetuates some of the same stereotypes that have hindered the development of leaders of both genders. Schein (1989) condemns the entire idea of an androgynous leadership style as a “foolhardy and dangerous one.”

*It will not add to our understanding of leadership effectiveness, for it takes a narrow and simplistic approach to what is a broad and complex set of issues and activities. It will not promote equality of opportunity in the workplace because it perpetuates sex role stereotypical thinking that has no basis in reality. The androgynous orientation builds a managerial access bridge for women on a shaky foundation of sand. (P. 155)*

We need to move beyond viewing any one style as the ideal and to strive to create organizational environments that will be receptive to many diverse types of leadership styles.

#### **4. Conclusions and implications**

The field of gender differences in leadership styles is an area that is still full of ambiguity and paradox. Despite the number of studies devoted to the topic, there are still unanswered questions. Researchers will doubtlessly continue to work on the topic, and perhaps, with time, we will arrive at some definitive answers to the question of whether there are really any innate differences in the leadership styles of males and females. Currently, the evidence suggests that there are some small differences; however, it seems likely that they are not innate but the result of differing socialization.

In conclusion, let us leave the vast, and often confusing, body of literature dealing with gender differences in leadership style and return to the quotation that began this article. Burns (1978) writes that when women are accepted as leaders “men will change their own leadership styles” (p. This phrase is a useful one to use as a springboard for some personal perceptions about the need for all of us to change our thinking about gender differences in leadership styles. In my opinion, Burns is right. When women are accepted as leaders, some men will change their leadership styles because that option will then be available to them. The maintenance of rigid gender role stereotypes has hurt not only women but men. We all need to realize that people, with their widely divergent abilities and advantages, should be looked at first and foremost as individuals rather than as simply members of one gender or the other. Many of the problems that have confronted women have also confronted men; these are human problems not women’s problems. When institutions are able to involve both men and women equally on the basis of individual merit, they will be better places for everyone.

There is, at the present time, a growing awareness on the part of many males that their options have been limited by societal norms about what is proper male behavior. The current rash of books and articles dealing with how men can reestablish connections with their emotions is evidence of the interest in this topic. The reshaping of tomorrow’s organizations will assist men as well as women since the traditional hierarchy has hampered the development of the full potential of both.

Men will have a vital role to play in this restructuring of the workplace. Qualities such as decisiveness, assertiveness, and risk taking that have been considered masculine will be valuable in creating the workplace of the future. Men and women have a great deal to teach each other about leadership and, as they learn from one another, they can bring strengthened leadership abilities to their organizations. Allowing women a greater role in leadership will provide a win-win situation for both genders.

The challenge to organizations of the future is to accept a variety of leadership styles. There is no one “best” style of leadership. It all depends on the organization and the task to be done. If organizations continue to become flatter and less hierarchical, some of the leadership traits traditionally associated with women leaders will be most appropriate in those organizations. Both men and women should feel free to adopt leadership strategies that will help them succeed. The recognition of a diversity of leadership styles will allow potential leaders to lead in ways that will draw upon their individual strengths. The restructured workplace will provide a setting for a variety of leadership styles to flourish, and, as a result,

it will gain in strength and flexibility. Clearly we are in a period of transition in regard to our thinking about gender differences in leadership styles. The cultural factors supporting differences in leader behavior are in a period of flux. It seems likely that as more women assume leadership roles and as sex role stereotypes fade away, the very notion of gender differences in leadership style will also disappear. We will recognize that different leaders have different styles, but we will not automatically associate one style with women and another with men. Males and females alike will be challenged to develop the type of leadership skills that will be needed to lead the organizations of tomorrow

Acknowledgement: This work was supported by the strategic grant POSDRU/89/1.5/S/62259, Project "Applied social, human and political sciences. Postdoctoral training and postdoctoral fellowship in social, human, and political sciences" cofinanced by the European Social Fund within the Sectorial Operational Program Human Resources Development 2007-2013.

## References

- Bass, B. M. (1981) *Stogdill's handbook of leadership* (rev. ed.). New York: Free Press,
- Burns, J. M.( 1978) *Leadership*. New York: Harper and Row,
- Donnell, S. M., & Hall, J.,( 1980), *Men and women as managers: A significant case of no significant differences*. *Organizational Dynamics*, Spring, 60-76.
- Eagly, A. H., & Johnson, B. T(1990). *Gender and leadership style*. *Psychological Bulletin*, 108(2),233-256.
- Eisler, R.(1991)*Women, men, and management: Redesigning our future*. *Futures*, 23(1), 1-18.
- Epsteln; C. F.( 1991 )*Letter*. *Harvard Business Review* , 69(1), 150-151.
- Harragan, B. L. (1977) *Games mother never taught you: Corporate gamesmanship for women*. New York: Rawson Assoc,
- Hearn, J., & Parkin, P. W.( 1986) *Women, men, and leadership: A critical review of assumptions, practices and change in the industrialized nations*, *International Studies of Management d. Organization*, - 87, 16(3-4),33-60.
- Helgensen, S. (1990) *The female advantage: Women's ways of leadership*, New York:
- Hennig, M., & Jardim, A.(1977) *The managerial woman*. Garden City, NY: Anchor Press,
- Hollander, E. P. (1985) *Leadership and power*. In G. Lindzey & E. Aronson (Eds.), *The handbook of social psychology* New York: Random House, pp. 485-537.
- Hollander, E. P., & Offermann, L.R.( 1990) *Power and leadership in organizations: Relationships in transition*. *American Psychologist*, 45(2), 179-189.
- Kanter, R. M. (1977)*Men and women of the corporation*. New York: Basic Books,
- Kanter, R. M.( 1983). *The change masters: Znnovation and entrepreneurship in the American corporation*. New York: Simon and Shuster,
- Kelley, R. M.; Hale, M. M.; & Burgess, (1991), J. *Gender and managerial leadership styles: A comparison of Arizona public administrators*, *Women and Politics*, 11(2), 19-39.
- Loden, M. (1985) *Feminine leadership, or how to succeed in business without being one of the boys*. New York: Times Books,
- Morrison, A. M.; White, R. P.; Van Velsor, E.; & The Center for Creative Leadership ( 1987). *Breaking the glass ceiling: Can women reach the top of America's largest corporations?* Reading, MA: Addison-Wesley,
- Morrison, A. M., & Von Glinow, M. A.( 1990), *Women and minorities in management*. *American Psychologist*, 45(2), 200-208.
- Naisbitt, J., & Aburdene, P.( 1986. *Reinventing the corporation*. New York: Warner Books,
- Nelton, S. (1991) *Men, women and leadership*. *Nation's Business*, 79(5), 16-22.
- Ouchi, W. G. (1981) *Theory Z: How American business can meet the Japanese challenge*. Reading, MA Addison Wesley,
- Powell, G. N. (1990), *One more time: Do female and male managers differ?* *Academy of management executives*, 4(3), 68-75.
- Powell, G. N., & Butterfield, D. A. (1989) *The "good manager": Did androgyny fare better in the 1980s?* *Group and Organization Studies*, , 14(2), 216-233.
- Riper, S., & Galligan, P.( 1980), *Women in management: An exploration of competing paradigms*. *American Psychologist*, 35(10), 902-910.
- Rivers, C,( 1991) *Glass ceilings and limits on leadership*, *The News and Observer*, August 25, pp. 1, 3.

- Rosener, J. B.( 1990) *Ways women lead*, Harvard Business Review, , 68(6), 119-125.
- Russell, J. E. A.; Rush, M. C.; & Herd, A. M. (1988) *An exploration of women's expectations of effective male and female leadership*. Sex Roles, 18(5/6), 279-287.
- Sargent, A. G., & Stupak, R. J,( 1989) *Managing in the '90s: The androgynous manager*. Training and Development Journal, 43( 12), 29-35.
- Schein, V. E. (1989). Would women lead differently? In W. E. Rosenbach & R. L. Taylor (Eds.), *Contemporary issues in leadership* (2d ed.) (pp. 154-160).
- Shavlik, D. L., & Touchton, (1988), J. G. *Women as leaders*. In M. F. Green (Ed.), *Leaders for a new era*, (pp. 98-117). New York: American Council on Education and Macmillan Publishing Co.
- Statham, A. (1987) *The gender model revisited: Differences in the management styles of men and women*. Sex Roles, 16(7/8), 409-429.
- Tannen, D. ,(1990) *You just don't understand: Women and men in conversation*, New York: William Morrow
- Winther, D. A., & Green, S. B. (1987) *Another look at gender-related differences in leadership behavior*. Sex Roles, 16( 1/2), 41-56.

## GENERAL ASPECTS REGARDING THE APPROACH OF NATIONAL CULTURE

**POPOVICI Norina**

*Associate Professor Ph.D., Faculty of Economics/Department Business Administration, "Ovidius" University, Constanta, Romania, norinapopovici@yahoo.com*

**MORARU Camelia**

*Ph.D. student, Academy of Economic Studies, Bucharest, Romania, cami.moraru@yahoo.com*

**HORGA Maria-Gabriela**

*Assistant Professor Ph.D., Faculty of Economics/Department General Economy, "Ovidius" University, Constanta, Romania, gabihorga@gmail.com*

**Abstract:** *The cultural characteristics of different geographic areas have been long studied by various specialists in their attempt to define a series of national cultural dimensions which will contribute to a better understanding of the causes of success or failure of an organization. Among these, the most notable are Hofstede's analysis, a classic in this field and the Globe study, a modern research. These studies analyze the same variables but differ in depth analysis and approach. Since these studies were conducted in different time intervals, we analyzed throughout the paper some discrepancies that appear in two countries: Denmark and France.*

**Key words:** cultural particularities, cultural dimensions, Hofstede, Globe, study

**JEL classification:** M14

### 1. Introduction

Over time there have been a lot of studies based on the cultural differences that occur in the framework of an organization. A lot of cultural models have arisen from these studies that approach the management process and the policy regarding human resources.

Some studies have gone all the way, offering measurable information or numeric indicators for different countries.

Still, the major problem we are confronted with is the inconsistency between these two models. This inconsistency is due to:

- the period in which the study took place;
- the number of people;
- the influence of each organization.

At present there are at least six studies regarding national culture which are frequently met in the specialized literature. These belong to the authors:

- a. Kluckhohn and Strodtbeck;
- b. Hofstede;
- c. Hall;
- d. Trompenaars;
- e. Schwartz;
- f. House (The Globe Study).

Carrying on, we have chosen to analyze two studies: a recent and very extensive one (The Globe study) and one very frequently met in the specialized studies in Romania, the study belonging to the researcher Hofstede.

As reference countries we have chosen Denmark and France, states that have a powerful national culture and that have a great economical power manifested through the presence of the multinationals on the whole globe.

### 2. Theoretical notions: the Hofstede Study vs. the Globe Study

A lot of researchers have approached the national culture theme especially to determine common, specific behavior for each country. Each existent study presents certain cultural dimensions, which can be boxed in 5 big themes.

- a. Distribution of power and authority;

- b. Orientation towards the group or individual;
- c. Relationship with the environment;
- d. Use of time;
- e. Personal and social control.

Next, we went for the comparative analysis of two of these studies, the first one the Hofstede study is best known regarding national culture, this study is found in the majority of studies. The second one, the Globe study is a more elaborated version than the first, because here a lot more cultural dimensions are delimited, and the analysis is based on more companies from different countries.

## **2.1. The Hofstede Study**

The researcher G.Hofstede developed the amplest study of his time regarding the dimensions of national culture.

While he was working at IBM he observed that in spite of the companies set of values, among the employees there where a series of cultural differences which belong to each employees country of origin, and which vary from each level of the same company. The researcher explored the differences

Of thinking and social behavior that characterized the members from more than 50 countries. The data base that was put together holds the results recorded on a branch level of a multinational company (IBM) and present in over 70 countries, it holds numerous questions regarding values. This analysis has been made twice in the year 1968 and 1972, accumulating a total of over 116.000 questioners. Hofstede studied a large data base holding the values stated by the employees, the data base collected by IBM between the years 1967-1973, at the beginning analyzing just 40 counties, then extended its analysis to 70 countries and two regions.

On the basis of the initial results and on further additions, Hofstede developed a model that contained 4 main dimensions.

1. Distance from power;
2. Individualism vs. Collectivism;
3. Femininity vs. Masculinity;
4. The degree of avoiding incertitude.

Hofstede also added a fifth dimension based on the Confucian dynamic: long term orientation vs. short term orientation

The distance from power, the first dimension of the study, shows the measure in which society accepts the fact that power is distributed unequally among institutions. At the same time it represents the measure in which individuals have expectations regarding a hierarchal structure that will underline the differences between superiors and subordinates.

The dimension individualism-collectivism represents the degree in which society values personal objects, autonomy, intimacy, the commitment towards group norms, the implication in group activities, social cohesion and intense socialization.

The third dimension (masculinity-femininity) illustrates the degree in which a society sees confident behavior or masculine as being important for success and encourages the stereotypes related to the sex role. The boundary between these expectations differs from one country to another.

Avoidance of uncertainty, the fourth dimension of this study is defined as "the measure in which the members of a culture feel threatened of uncertain or unknown situations"

Long term/short term orientation represents the last identified dimension by Hofstede and illustrates the measure in which values are orientated towards the future (economize, perseverance), in contrast to the past or present ( respect for traditions, fulfilling social obligations).

## **2.2. The Globe Study**

The Globe Study is a study realized on the long term to explore the complex and fascinating effects of the leadership culture, the organization itself, the economical competitively of companies and the human recourses the have.

The Globe Study was carried out in the middle of the 1990s. It's primary objective was to enhance the available knowledge which is relevant for intercultural interactions.

The Globe researchers analyze culture at different levels, using the values and practices existent at the industry level (financial services, telecommunication), the organizational level and society level approaching 62 national cultures.

The study relies on the results obtained from questioning approximately 17.000 managers from 951 different organizations, that where carrying out their activity in 62 countries. Their purpose was to

enhance and complete the researched started by Hofstede and to test the assumptions that were developed on leadership themes.

The study contains nine dimensions which overlap those identified by Hofstede, as shown in the following table:

**Table 1**

Cultural dimensions	Hofstede	Globe
1.Distribution of authority and power in society	- distance from power	- distance from power - orientation towards performance
2.Orientation towards group or individuals	- individualism/ collectivism	- institutionalized collectivism - social collectivism
3. Relationship with the environment	- uncertainty avoidance	- avoiding uncertainty - human values - assertively
4. Length in time	- short term/long term orientation	- long term orientation
5.Social or personal control	- masculinity/ femininity	- femininity/ masculinity

Source: Personal approach from Cambridge University Press nr 11/2012, page 9, table 1.7

The principal differences between the Globe study and the Hofstede study are presented in table 2.

**Table 2**

Differences	Globe	Hofstede
Period	1994 -1997 (3years)	1967 -1973 (6years)
Respondents	Managers	Managers and employees
Companies	951	1
Society types	National	IBM and national branches
Industries	Financial, telecommunications and from the food industry	Information technology
Review	Team	Individual study
Number of dimensions	Nine	Five
Number of examined cultures	62	72
Number of persons interviewed	17.000	116.000

Source: Personal Approach from Canadian Center of Science and Education , “International Journal of Business and Management” Vol 6, Nr 5, May 2011, Page 98

### 3. Comparative analysis: Denmark- France

The first country we are going to focus on is Denmark, country with a large influence on the European economy. In the tables below we will show the main elements characterizing the culture of this country from professors Hofstede perspective (Table 3) and the Globe study (Table 4).

**Table 3**

Distance from power	18 ( small distance)
Individualism/ collectivism	74 (individualism)
Uncertainty avoidance	23 (small degree of avoidance)
Long term/short term orientation	46 (short term orientation)
Masculinity/ Femininity	16 (femininity)

Source: Adaptation from Geert Hofstede and “Culture’s Consequences: International Differences in Work Related Value”, Sage Publications Inc, Beverly hills’, 1984 ,page 6-18

**Table 4**

Distance from power	4,14 ( small distance)
Uncertainty avoidance	5,32 ( high degree)
Social collectivism	3,63 ( high, collectivism)
Institutionalized collectivism	4,93 ( high, collectivism)
Femininity/masculinity	4,02 ( femininity)
Short term/long term orientation	4,59 ( high, long term)
Human values	4,67 ( high)

Assertively	4,04 ( medium)
Orientation towards performance	4,4 ( high)

Source: Adaptation from Robert J. House and., The Globe Study of 62 Societies, (ed.) Culture, Sage Publications, Inc., 2004, page 23

From the tables above, we conclude that Denmark is characterized by a small distance from power and a high orientation towards performance, leading to the next situation:

- a middle class, well distinguished and developed;
- equal rights for everyone;
- minimal differences in wages;
- management theories are focused on the needs of the employees;
- a high possibility in getting a promotion;
- competitiveness and loyalty are both predominant;
- performance before individual.

According to both studies , the Danish society can be characterized by a high degree of femininity. An important aspect which is characteristic to a culture of this type is the tendency to solve conflicts through "negotiation and compromise" and a greater interest towards the quality of social life. The first difference that we encounter in the two studies is the relationship with the environment. According to Hofstede, in Denmark there is a low level of uncertainty avoidance, but in the Globe study we encounter a high level of uncertainty avoidance together with a medium assertiveness and high human values like:

- altruism, kindness and generosity;
- interest for the well-being of others;
- few problems regarding psychology or pathology.

The next difference is regarding the orientation towards group or individual, Hofstede described a high level of individualism, while the Globe study reveals a society based on collectivism.

The third difference refers to the long term/short term orientation. Hofstede considers Denmark as a short term oriented society while the Globe study characterizes it as a society oriented on the long term.

The second country that we refer to, is France, one of the biggest economical powers of Europe, country which analyzed both by Hofstede and the Globe study. The cultural dimensions belonging to Hofstede and the Globe study are being illustrated in table 5 respectively 6.

Table 5

Distance from power	68 ( big distance)
Individualism/ collectivism	71 (individualism)
Uncertainty avoidance	86 (high degree of avoidance)
Long term/short term orientation	39 (short term orientation)
Masculinity/ femininity	43 (femininity)

Source: adaptation from Geert Hofstede and "Culture's Consequences: International Differences in Work Related Value", Sage Publications Inc, Beverly hills', 1984 ,page 6-18

Table 6

Distance from power	5,32 ( big distance)
Uncertainty avoidance	4,66 ( high degree)
Social collectivism	4,66 ( high, collectivism)
Institutionalized collectivism	4.2 ( high, collectivism)
Femininity/ masculinity	3,81 ( femininity)
Long term/short term orientation	3,74 ( high, long term)
Human values	3,6 ( high)
Assertively	4,44 ( medium)
Orientation towards performance	4,43 ( high)

Source: Adaptation from Robert J. House and., The Globe Study of 62 Societies, (ed.) Culture, Sage Publications, Inc., 2004 .

From these tables we can see that this country is characterized by a big distance from power , a fact that leads to:

- managers and subordinates consider themselves unequal, existentially speaking;
- there are a numerous hierarchy levels;
- the society is divided in social classes;
- the premises of power is stable and rigid.



Another resemblance is the high level of uncertainty avoidance. In a state like this, there are many informal laws that dictate the rights and duties of the owners and of the employees.

Both studies describe France as a femininity based culture, therefore there is a preference for solving conflicts through compromise and negotiation. Despite the facts it is not uncommon for bosses to exchange insults with employees or syndicates. But there is a "French sense of moderation" involved that allows the two parts to continue working together.

The first difference would be regarding the type of orientation, G. Hofstede characterized France as being short term orientated, therefore the accent falls on tradition, moral and ethics and on personal safety and stability. Globe, on the other hand presents France as being long term orientated, which requires persistence, perseverance, moderation and also flexibility and adaptability.

The second difference refers to the ratio between individualism and collectivism. Hofstede promotes the idea of an individual based society where individuals take responsibility and claim that they are not dependent on the organization they work for. In the Globe study, the French culture is described as being collectivity based. In this case the important decisions are made inside a group, and the group is also the one that takes responsibility.

Following the analysis we made, we can safely say that the two countries have very much in common regarding uncertainty avoidance, orientation towards group or individual, personal or social control and time management.

The only difference we found is regarding the way power and authority is distributed, in Denmark there is a small distance from power, whereas in France things are opposite.

#### **4. National culture from a business environment point of view**

To better illustrate the cultures from Denmark and France we have chosen to appeal to the public opinion and to the specialized one. On the basis of the found documents we will establish which of the identified studies is the most viable one.

According to an interview given by Claudiu Simion for the magazine Flacara, we have delimited several important aspects of Danish culture. Claudiu Simion is a manager at a multinational company in Denmark which has a branch in Romania. He started his career here and then transferred in Denmark, where he tells us "there are more possibilities to get promoted".

The cooperation's behavior depends very much on the country where it has its headquarters' have worked for the same company in Romania, China and Denmark. The differences are fundamental, like they are different companies."

We mainly state the fact that the national influence on multinational companies is very big. National values precede the organizational ones most of the time, and those of different cultures have to adapt to the majority.

„Here in Denmark, at 4oclock nobody is at the office, no matter who is boss. Here they have a equilibrium between their personal life and work very well defined and prevalent"

As Claudiu Simion states, Demark is a country with a high femininity level, orientated towards the group, as stated by the Globe study.

Misses Vaselina Asparuhova in her book "Leadership, culture and management practices", states a very important thing regarding Danish culture: "The companies in Denmark place a high value on long term strategy, this being the back-bone for durable development "which once more proves the actuality of the Globe study in which Denmark is seen as having a long term orientation.

"In the Danish framework enterprises, the work atmosphere is a relaxed one, relationships are mainly informal. This is due to the written and unwritten rules that characterize the society."

According to Vaselina Asparuhova, Danish society is characterized by avoiding powerful incertitude, the need for laws and rules is present in the organizations framework. This value of dimensions is found also in the Globe Study, where Denmark has a high index for avoiding incertitude. This characteristic is also supported by professor Holt: "Danish culture is highlighted through: disciplined activities, open dialog and the decisions are made at the group level."Holt

Unlike Denmark, the French culture has a higher distance from power" specific for the French mentality is to consider the boss as being an exploiter' this is told to us by mister Benjamin Haminade, employee at the company Michelin.

According to a press release given by the company Air France "the performance of the company is a direct result of the personnel's competence, Air France continually invests in training". In 2010 Air France invested 215 million Euros in personnel training, representing 8.35% of all the salaries. This

confirms that fact that French organizations are orientated towards the long term, establishing strategies and plans that lead to collectivization of the institutions.

These aspects about France are also specified in the Globe study where the institutional collectivism and the social collectivism have high values.

## **5. Conclusions**

Following what we have realized from these studies we can affirm, without any doubt that the cultural element continues to exercise a noticeable influence on the success of a cooperation, whose primary objective is to extend in diverse geographical spaces. The cultural particularities, the difficulty in relating that can occur between individuals, the eventual misunderstandings that can seriously influence the performance of an organization, leading to social tensions and economical problems and in the end to the organizations bankruptcy.

Even if the two studies taken into consideration contradict each other at certain points, not being able to capture the exact cultural particularities of the studied countries, they still represent an important beginning for understanding the causes that determine the success and the failure of an organization in the contemporary society.

Even though the Hofstede Study was elaborated better than three decades ago, it is still timely, catching very well the cultural particularities of the studied countries. The disharmony between theory and reality of the contemporary business environment is due to the changes encountered at a global level in the last years, changes to which the human society could not be ignorant towards.

Therefore, Professor Hofstede's study represents even today a norm, a starting point. The research carried out by Globe cannot be seen otherwise than an extension to the first, he completed, updated and concretized what Hofstede already stated. The nine dimensions stated by Globe constitute just a better analysis of what was known three decades ago.

## **6. References**

- Armenia Androniceanu, "Noutăți în managementul public", Ed ASE București, loc. București, 2011
- Hofstede, G. "Culture's Consequences: International Differences in Work Related Value", Sage Publications Inc, Beverly hills, 1984
- Cambridge University Press nr 11/2012
- Centrul Canadian al Științei și Educației, "International Jurnal of Business and Management" Vol 6, Nr 5, May 2011
- Veselina Asparuhova, „Leadership, culture and management practices”, ed. Aarhus, Denmark, 2011
- Holt, D.H. "International Management", Fort Worth, Texas: Dryden Press, 1998
- Robert J. House și al., The Globe Study of 62 Societies, (ed.) Culture, Sage Publications, Inc., 2004
- Internet:
- <http://revistaflacara.ro/claudiu-simion-%E2%80%9Emultinationalele-nu-sunt-bune-fie-si-ce-punem-in-loc/>
- <http://www.blogdumoderateur.com/index.php/post/Generation-Y-emploi-et-management-%3A-interview-de-Benjamin-Chaminade>
- <http://corporate.airfrance.com/en/the-company/men-and-women>

# RELATIONAL STRATEGIES – A MANAGERIAL SOLUTION DURING THE CRISIS

**PRICOP Oliver Constantin**

*Ph. D. Assistant professor, Faculty of Economics, University "Petre Andrei" of Iasi, Romania,  
[opric24@yahoo.com](mailto:opric24@yahoo.com)*

**Abstract:** *One of the most important strategic alternatives specific to the companies that afford playing on several markets or fields and need a strategic vision of operation in this regard is represented by relational strategies.*

*The relational strategies represent therefore a combination between the offensive and defensive character of the organizational behaviour and the preponderantly offensive managerial vision, focused on development and progress both at the level of the organization value chain and at the level of market performances.*

**Key words:** relational strategies, managerial vision, organizational behaviour, sectorial cooperation strategy

**JEL classification:** M10, M 21, P 13

## 1. Introduction

During the current crisis, the organizations are continuously looking for strategic solutions that offer them the certainty of a favourable evolution on the market and the perspective of developing a long-term viable offer structure.

One of the main dilemmas in this demarche is whether it is appropriate to adopt an offensive strategic behaviour or on the contrary, a defensive one. In other words, whether to attempt a business development or consolidate and make it efficient at the level of the current development parameters.

The current crisis caused uncertainty in the managers' decisions who are trying to find the optimal means of action. Their major worries aim at reducing the uncertainties and identifying a competitive climate, favourable for the business perpetuation and development.

One of the most important strategic alternatives specific to the companies that afford playing on several markets or fields and need a strategic vision of operation in this regard is represented by relational strategies.

Among the most significant phenomena of global economy in the last years is the increase and spread of the number of strategic alliances – varied forms of collaboration between the companies at international scale (Dicken, 1992).

However, can relational strategies represent an efficient solution in this context?

## 2. Arguments for the relational strategies during the crisis

The relational strategies (also named alliance or cooperation strategies) are differentiated from the generic and competitive strategies through the fact that they propose to generate win-win situations (Pricop, 2011). The strategic alliances are different inter-organizational agreements created by companies from different countries to obtain strategic advantages on different markets and in different business mediums (Peters, 1995, p.172).

The description of a cooperation strategy can be synthetically achieved in the following manner:

**Table 1: The description of relational strategies**

Strategy object
<ul style="list-style-type: none"><li>• Partnerships for resources</li><li>• Partnerships for production capacities</li><li>• Partnerships for key competences</li><li>• Partnerships for research-development</li></ul>
Concentration/Key elements
<ul style="list-style-type: none"><li>• Development</li><li>• Production</li><li>• Distribution</li></ul>
Means

<ul style="list-style-type: none"> <li>• Group strategies</li> <li>• Segmentation</li> <li>• Passive differentiation</li> <li>• Cooperation</li> </ul>
<b>Main objective</b>
<ul style="list-style-type: none"> <li>• Developing the field of activity</li> <li>• Developing/ conserving the business</li> <li>• More favourable positions or the consolidation of the existent ones</li> </ul>
<b>Secondary objective</b>
<ul style="list-style-type: none"> <li>• Better and more pertinent products and services</li> <li>• Satisfied clients</li> </ul>

As shown in the table above, even if the key elements of a relational strategy have a dynamic structure, the objectives aimed at must not necessarily lead to an offensive demarche. From this comes however the advantage of relational strategies during the crisis: they can produce development effects even if the managers proposed a defensive objective. This happens just because the key elements that are at the basis of the strategy are of dynamic nature.

The arguments laying at the basis of the achievement of a relational strategy can be structured in relation with the dynamics of the life cycle existent at the level of a certain market/industry (Pricop, 2011):

**Table 2. Arguments for the development of relational strategies**

<b>The dynamics of the market life cycle</b>	<b>Arguments for the development of relational strategies</b>
<i>Market with slow life cycle</i>	<ul style="list-style-type: none"> <li>• gaining access on protected/restricted markets</li> <li>• developing franchises on a new market</li> <li>• maintaining a stable market</li> </ul>
<i>Market with normal life cycle</i>	<ul style="list-style-type: none"> <li>• gaining power on the market</li> <li>• exceeding or sometimes avoiding the commercial barriers</li> <li>• identifying the competitive opportunities</li> <li>• insufficient resources for developing magnitude projects</li> <li>• acquiring new techniques, abilities, a good business practice</li> </ul>
<i>Market with fast life cycle</i>	<ul style="list-style-type: none"> <li>• increasing the speed of entering with new products or services, or on new markets</li> <li>• maintaining the leader position on the market</li> <li>• imposing a technological standard in the industry</li> <li>• dividing the risks and expense occasioned by the research-development activities</li> <li>• uncertain level of profitability and success of the business</li> </ul>

As we notice, the relational strategies are trying to reduce the level of the organizational risk by distributing it between the partners so that each has the capacity to manage more efficiently these risks through the competences they dispose of. Moreover, these partners' competences not only contribute to a better control of risks but they can generate through annexation synergic effects with potentiating character on the business.

Thus, we identify another major advantage of relational strategies during the crisis: achieving a development effect at the same time with diminishing the degree of managerial uncertainty.

During the crisis period, a great part of organizations have reduced their promotion budgets with the purpose of decreasing the total costs. The consequence was however the decrease of trademarks' notoriety and attractiveness. A strategic alliance may have benefits including in the direction of dividing the promotion costs. At the same time, such a partnership can ensure a better coverage of the new communication and promotion channels that appeared because of the mass-media specialization and fragmentation on product-market couples (for example the alliance between Tnuva and Vel Pitar from 2009 with the purpose of reducing the promotion costs).

### 3. The relational strategies – offensive or defensive

At the level of a business from the economic point of view, the relational strategies have the following forms of manifestation:

- Complementary strategic alliance (horizontally or vertically);
- Strategies for reducing uncertainties;
- Strategies for reducing the competition
- Strategies of competitive reactions (strategic answers of competitive nature).

*The complementary strategic alliances* may be developed both horizontally and vertically. The complementary strategic horizontal alliance occurs between the companies situated on the same level within the distribution chain, which usually are in competitive positions. The purpose of the relation is that of compensating their lacks or multiplying their strengths in view of achieving a long or short-term common objective. The complementarity level of the strategy is determined through the analysis of the value chain of each of the two partners and by identifying the connection elements. Most of the times, the complementarity is achieved on the same types of activities (support or basic activities), the mixture situations being more difficult to implement. A successful example in this regard is the alliance from 2006 between Dacia-Renault-Nissan which aimed at achieving a unique sales division on the territory of Romania (5). The complementary vertical strategy is usually established between a producer and a provider or one of its distributors. This type of vertical integration is based on a cooperation agreement and not through the procurement or fusions. In 2009, an example of strategic alliance of vertical type was that between Orange and eMag that aimed at promoting some discounts and a complementary offer solution (internet services and laptops/notebooks).

The two types of complementary strategies (horizontal and vertical) can be used alternatively or concomitantly, with different partners.

*The strategies for reducing uncertainties* are used for reducing the risks and uncertainty of an organization. This type of alliances are the most encountered ones on the markets with a fast life cycle. Usually, the strategy aims at reducing the existent uncertainties and dangers when launching new products on the market or implementing new technologies, or new technological standards. An example is that between Samsung and Google which in 2011 helped launching two new products.

*The strategies for reducing competition* are used to avoid the destructive or excessive competition situations. This type of strategic relation can be often illegal if it leads to disfavours the other competitors, the consumers or to the creation of monopoly situations. The strategy has two forms of manifestation:

- *explicit secret agreements*: the companies negotiate directly the sales volumes, the quality of products, the delivery conditions and the prices with the purpose of eliminating competition or reducing its power. Most of the times these actions are illegal.
- *tacit secret agreements*: several companies from an industry indirectly coordinate their decision regarding the conditions and level of deliveries and regarding the sale price, based on the observations of the other companies and the implementation of similar strategic reactions.

*The competitive reaction strategies* occur when several companies unite their force with the purpose of responding to a strategic reaction of other competitors. The strategy is difficult to apply because it is difficult to estimate the competitors' strategic reaction, and even if this is achieved the costs are very high. For this reason, we could moreover speak of a counter-attack strategy to a tactical reaction and not to a strategic reaction which is more complex to be anticipated even for an alliance of organizations.

Apparently, the relational strategies can be integrated both within an offensive managerial vision and within a defensive one as well. From the point of view of the analysed classification, we notice that the strategies for reducing uncertainties and those for reducing competition propose to increase the degree of control on the variables that influence the business environment in the key moments (launching/developing products, intensifying competition). Even if they represent an adaptive demarche, these strategies suppose an offensive managerial vision because the final purpose is eliminating some mobility barriers and not avoiding them.

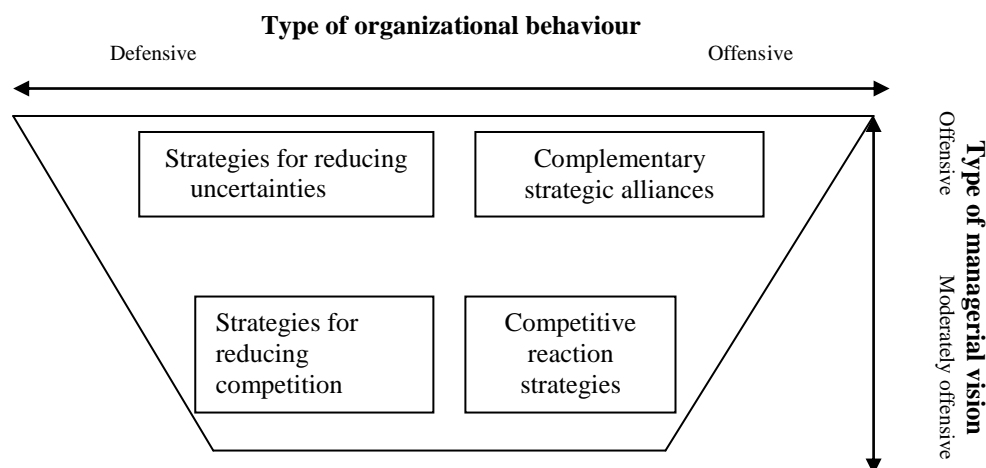
The strategy of complementary alliances represent a demarche of business development but out of offensive managerial reasons, meant to consolidate the organization's existent positions.

The competitive reaction strategy also supposes, a defensive organizational behaviour but it corresponds to an offensive managerial vision.

We notice it is necessary to dissociate the organizational behaviours of managerial vision which lays at the foundation of relational strategies, more exactly to dissociate the means of action from their motivation. This strategic duplicity refers to the construction of relational strategies that are based on partnerships meant to dilute or complicate the organizations' intentions (especially those of competitive nature).

Synthetically, we can express the managerial vision-organizational behaviour relation within the relational strategies, in the following manner:

**Figure1. The characterization of relational strategies according to the type of managerial vision and the organizational behaviour**



From the competitive point of view, the relational strategies offer considerable advantages and the possibility to compensate the missing competences. However the time horizon differs, in which the competitive advantages can be protected. Thus, the vertical complementary strategic alliance most often lead to the creation of sustainable competitive advantages. The horizontal ones are usually difficult to maintain on the long term since they take place between the competitors. The competitive advantages resulting from the strategies for reducing the competition and uncertainty tend to be temporary.

A special category of relational strategies derive from the types of partnerships that a company develops in relation with the state organizations. From this point of view we can identify the following types of relational strategies (Ciobanu, 1998, p.236):

1. *The national protection* is a situation encountered in the case of national companies that benefit from the protection of their own state especially in relation with the external competitive companies. This type of protection is manifested through direct measures (of fiscal, tariff or commercial nature), or indirectly (under the form of contingencies, quality conditions, preferential orders etc.)

2. *The club of state providers* comprises the companies selected based on political criteria or based on clan interests to which the state distributes either directly certain preferential orders, or in a disguised manner. Sometimes the support is offered to the companies operating on external markets in view of consolidating the country image or developing strategic economic partnerships.

3. *The political-technological strategies* represent a specific situation especially in the case of countries with a centralized or semi-centralized economy where the state plans and monitors the competitive relations between the companies. The situation can also be found at a reduced scale in the free economies as well, in the fields where the state has a strategic interest of political or technological nature.

4. *The political-syndicate strategies* represent situations of pseudo-intrusion of the state in the business sphere, its role being often an indirect one, of negotiator or intermediary of the relations between the organizations management and syndicates. However, because of the social and political connotations involved within the discussions between the syndicates and organizations, discussions that sometimes have as starting point the national economic-social situation, the state involvement cannot be excluded.

A distinct form of strategic alliance between the state organizations and the private ones is represented by what we may call *sectorial cooperation strategy*. The purpose of the alliance is promoting the sectorial interests of some fields considered key in the competitive gearing of a nation. In Romania, an example in this regard is represented by Digital Alliance for Romania 2020 initiative group, a partnership

signed this year between Internet Society Romania and the Ministry of Communications and Information Society. We consider that the relational strategies of public-private type are based on a rather defensive than offensive behaviour, their purpose being that of protecting the organizations and consolidating their market position. The managerial vision is an offensive one since it wants to obtain a certain control on the resources or levers specific to the state.

Both the strategies between the companies and those between the companies and the state organizations can be classified from the point of view of the complexity of forms of manifestation in strategies of X or Y type (Porter, 1986).

The strategies of X type are those in which the organizations put in common the competences from different sectors within the value chain (for example the alliance between Flanco and Credisson).

The strategies of Y type are those in which the organizations put in common similar competences within the value chain. The purpose is most of the times increasing the capacity of exploitation of an opportunity at the level of inputs (organization resources) or at the level of outputs (organization products). A recent and very complex example through the generated strategic structure and values involved is that between Rosneft Russian company and ExxonMobil American company. They signed a strategic alliance regarding the off-shore exploitations for several projects in North America. However, specific to this strategic alliance was the achievement of a XY cooperation form since ExxonMobil ceded shares in parallel to the Rosneft branches (30% of the ExxonMobil projects from Western Texas, Canada and Mexican Gulf).

The dynamics of the current economic environment creates opportunities for the development of relational strategies. The on-line environment facilities represent key factors for substantiating such strategies via Internet. A few of the most usual forms of cooperation in the on-line environment are: Developing promotion sites (the most used are the cross-promotions, consisting in using the electronic coupons obtained when purchasing a brand for acquiring another brand) Sales partnerships (especially IT products or services).

The relational strategies represent therefore a combination between the offensive and defensive character of the organizational behaviour and the preponderantly offensive managerial vision, focused on development and progress both at the level of the organization value chain and at the level of market performances.

#### **4. Conclusions**

Certainly, the relational strategies represent a suitable choice for the crisis period. The main arguments are:

- Distribution of risks
- Diminishing the organizational vulnerability
- Increasing the exploitation potential
- Increasing the resources
- Increasing the market flexibility
- Diminishing the competitive intensity

At the basis of the relational strategies there is always an offensive managerial vision that aims at reaching a superior level of business development. This vision is however implemented both through adaptive organizational behaviours and through offensive organizational behaviours according to the nature of the chosen strategy.

In a more and more vulnerable economic environment and more exposed to some uncontrollable factors, the relational strategies manage to consolidate the activity of a company by anchoring it with the help of other companies. The essential conditions in such a demarche is however the desire of reciprocal progress and the existence of some functioning alliances parameters, extremely rigorously determined and respected.

*"This paper has benefited from financial support through the project "Post-Doctoral Studies in Economics: continuing training program for elite researchers - SPODE", finance contract no. POSDRU/89/1.5/S/ 61755, project funded by European Social Fund through Human Resources Development Operational Sectoral Programme 2007-2013".*

## 5. References

- Ciobanu I. (1998) *Strategic Management, Original: Management strategic*. Polirom Publishing, Iasi
- Dicken, P. (1992) *Global Shift. The Internalization of Economic Activity Second Edition*. Paul Chapman Publishing
- Peters, T (1995) *International Business*. London: Collins Publishing
- Porter M.E. (2008) *Despre concurență, Original: On Competition*. București: Meteor Press
- Porter, M. E. (1986) *Competition în Global Industries, Coalitions and Global Strategies*. Harvard Business School
- Pricop O.C. (2011) *Strategic dimensions in management and marketing, Original: Dimensiuni strategice in management si marketing*. Performantica Publishing, Iasi
- Rusu C., (1999), *Strategic Management, Original: Management strategic*, All Beck Publishing, Bucuresti
- <http://economie.hotnews.ro/stiri-telecom-11391150-ministerul-comunicatiilor-alte-14-organizatii-firme-semnat-protocol-pentru-sustinerea-incluziunii-digitale-romania.htm>
- <http://economie.hotnews.ro/stiri-companii-12019454-rosneft-exxonmobile-semnat-alianta-strategica-privind-exploatarile-offshore-mai-multe-proiecte-din-america-nord.htm>
- <http://www.zf.ro/companii/vel-pitar-se-asociaza-cu-tnuva-intr-o-campanie-de-promovare-comuna-ce-reduce-costurile-3881794/>
- <http://www.livenews.ro/economic/tripla-alianta-dacia-renault-nissan.html>



# CASE STUDY ON THE STATE OF PROJECTS ACCESSED BY PUBLIC INSTITUTIONS IN CENTRE REGION

**RANF Diana Elena**

*teaching assistant, Ph.D. student, "Hermann Oberth" Faculty of Engineering, "Lucian Blaga" University, Sibiu, Romania, ranfd@yahoo.com*

**TODĂRIȚĂ Elida-Tomița**

*teaching assistant, Ph.D. student, "Hermann Oberth" Faculty of Engineering, "Lucian Blaga" University, Sibiu, Romania, elida.todarita@yahoo.com*

**DUMITRAȘCU Dănuț**

*professor, Ph.D., "Hermann Oberth" Faculty of Engineering, "Lucian Blaga" University, Sibiu, Romania, dumitrascud@asconet.ro*

**Abstract:** The article is mainly designed to identify the types of funds accessed by public institution in Centre Region and the fund with the highest degree of access. Consequently, a sample of public institutions in Centre Region was established, most of which have accessed funds. This research also tries to identify the main investment priorities of the institutions, as well as the way these have been correlated with the projects they have accessed. In the article there were identified the number of accessed projects, approved projects and the extent to which they have resulted in research contracts signed with the authorities.

**Key words:** projects, funds, European, financing, accessing.

**JEL classification:** M16.

## 1. Introduction

The article seeks to identify the degree of maturity of project management in the Romanian economy and if we can speak about a culture of projects in our country.

Although we often hear talking about projects and European funds, the signals we are being given regard the low rates of absorption of these European funds. After the first 5 years of European Union membership Romania paid to the community budget a contribution of over 6,5 billion euro. However, the amounts received do not exceed 3,5 billion euro, which means that so far Romania has financed the European Union with 3 billion euro. The situation could be different because Romania's contribution represents approximately 47 euro/inhabitant every year, while each Romanian receives annually 71 euro more than the contribution. Thus, Romanian should focus more on turning European funds into opportunity.

The present article contains an exploratory research, based on a questionnaire, which begins with the definition of the issue, the objectives of the research and ends with a presentation of the results of the study.

The main issue identified in this research is the low rate of absorption of European funds. Currently, Romania is situated on the last place in the rate of absorption of European funds, with a rate of 25%. The objectives of the research are:

- Identifying the main types of funds accessed by the social actors in the Centre Region during 2007-2011;
- Identifying the type of fund with the highest rate of access by the social actors in the Centre Region;
- Identifying the main objectives aimed by them through the projects they developed;
- Identifying the main investment priorities of the social actors in the Centre Region.

The following hypotheses were taken into consideration:

- The most accessed fund is the European Social Fund;
- The public institutions have had as main objectives in the carried projects the investments in human resources and infrastructure;
- The main investment priority of the social actors is infrastructure, followed by perfecting the attraction of foreign investors, etc.

The research's target group consists of public institutions (town halls, local councils, foundations, public administrations, prefectures) or NGOs from the Centre Region (the counties of Alba, Brasov, Covasna, Harghita, Mures and Sibiu), most of them who have accessed European funds. A number of 95 questionnaires were collected, of which 73 questionnaires were processed, the remaining 22 respondents being institutions that that not accessed any type of funds and whose processing would have vitiated the results.

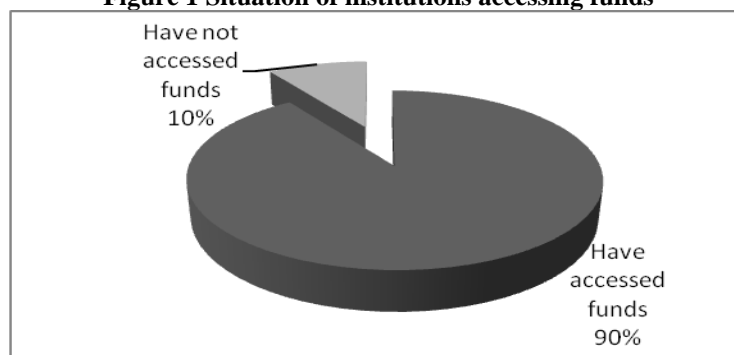
A questionnaire was used for the study that would provide the necessary information to solve the issues raised and the investigated aspects. Through the type of questions used, the way they were formulated and their sequence, as well as through the general appearance of the questionnaire, we have tried to get the respondents' cooperation, their motivation to reach the best results at the end of the interview.

## 2. The situation of projects accessed by institutions included in the research

Most institutions (90%) that were included in the research have accessed grants, either European, or from the state.

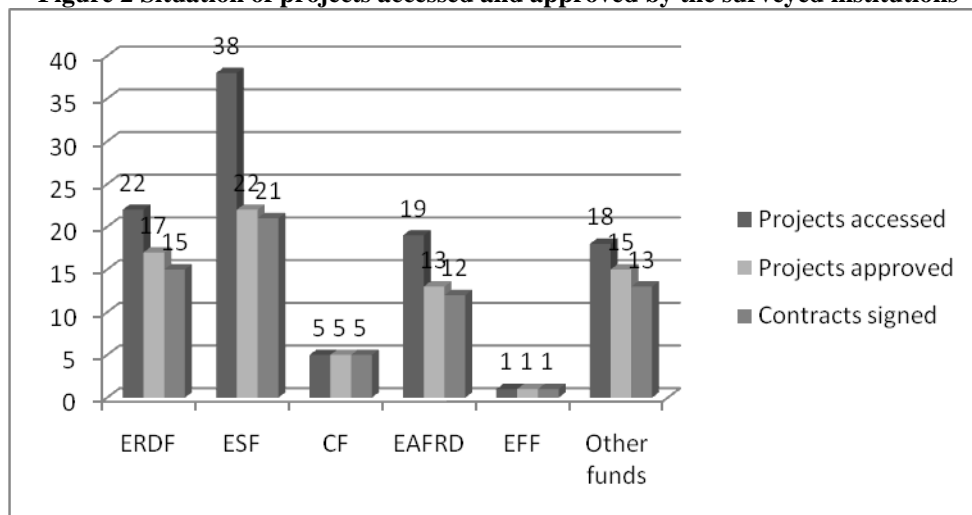
In addition to the European funds mentioned in the questionnaire (ERDF, ESF, CF, EAFRD, EFT), institutions mentioned having accessed funds like: PHARE, SAPARD, European Union "Culture" Programme (2007-2013), Comenius, Life+, Norwegian Cooperation Programme, United Nations Development Programme, URBACT, FRDS (Romanian Social Development Fund), PNDI (National Infrastructure Development Programme).

**Figure 1 Situation of institutions accessing funds**



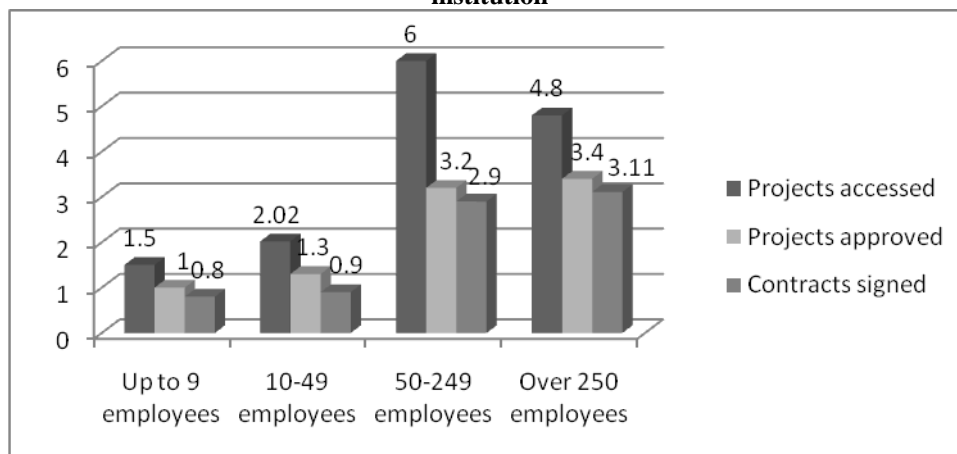
The figure below shows the number of projects that have been accessed, approved and benefited from signed contracts for the above mentioned funds. Overall, the surveyed institutions have submitted 103 funding requests, of which 73 projects were approved and only 67 were completed with the signing of contracts with the payment agencies. Since the sample consists of 73 institutions, there are currently institutions that have not implemented any project.

**Figure 2 Situation of projects accessed and approved by the surveyed institutions**



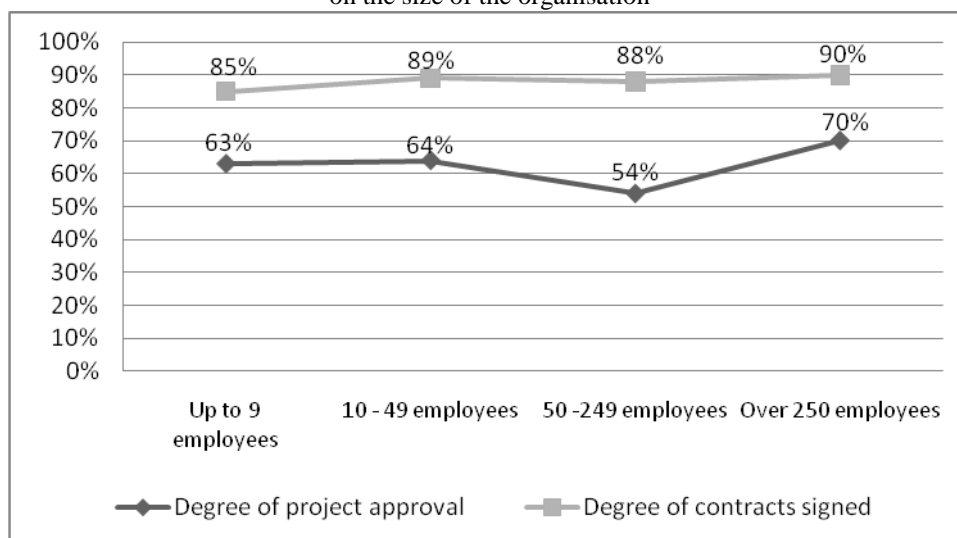
The information in figure 3 allows us to analyse the level of access and the projects approved by institutions depending on their size. It can be noticed that the number of accessed projects increases directly proportional to the size of the institution and it decreases at the institutions with more than 250 employees. The largest number of projects accessed/institution is held by the institutions that have 50-249 employees, 6 projects accessed per institution.

**Figure 3 Accessed, approved projects and contracts signed by the institutions depending on the size of the institution**



But in terms of accessed programmes and signed contracts, it can be noticed from the figure above that their number increases directly proportional to the number of employees, from an average of one project approved/institution for the institutions of up to 9 employees, to 3,4 projects approved/institution for the institutions of over 250 employees. Institutions having between 50-249 employees, although they have a large number of projects submitted, they have a low rate of approval for them.

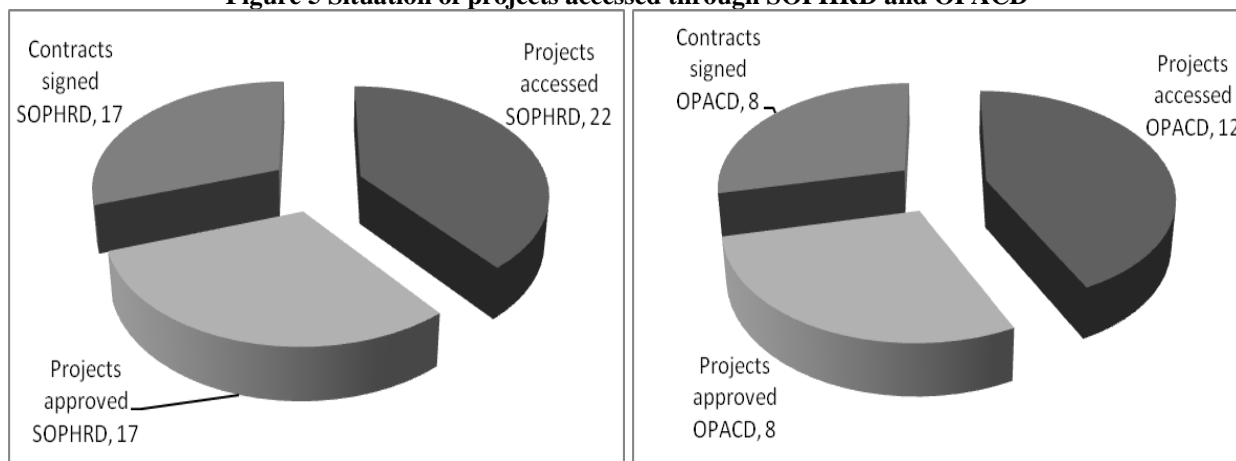
**Figure 4 Extent to which projects have been accessed and contracts signed depending on the size of the organisation**



It can be noticed from figure 4 that the degree of projects' approval increases with the size of the institution, exception being the institutions having 50-249 employees. These, although they have a large number of application forms submitted, have received only 54% of approved projects. Overall, the number of requests submitted by institutions and that have received the approval vary between 54%-70%. With regard to the contracts signed with the payment agencies, between 85%-90% of the projects approved have resulted in contracts. As a result of the situation of projects accessed by institutions, we can suppose that the greatest difficulties they face are in the stage of filling out the application form.

It can be noticed from Figure 2 that one of the hypothesis of the research is being verified, according to which the most accessed fund is the European Social Fund, with 38 projects accessed, of which 22 through the Operational Programme Human Resources Development (SOPHRD) and 12 through the Operational Programme Administrative Capacity Development (OPACD).

**Figure 5 Situation of projects accessed through SOPHRD and OPACD**



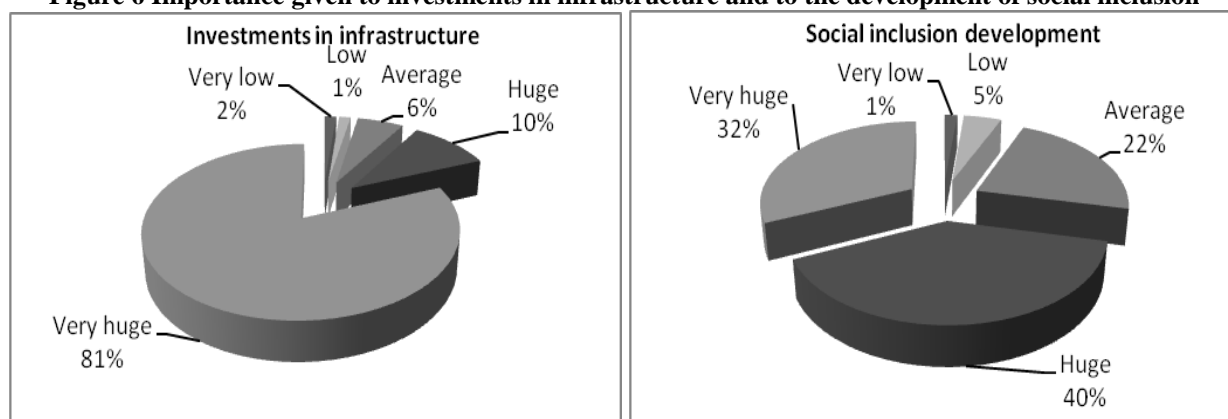
Among the main objectives aimed by the respondents through these projects (submitted through ESF), the most often mentioned are:

- Facilitating employment of youth from the rural areas;
- Improving the quality of life and working conditions by diminishing disparities between development opportunities offered by the urban environment to the rural one;
- Access of Romanis on the labour market;
- Improving the quality of education in upper secondary education;
- Increasing the training of personnel and diversifying the personnel's area of training;
- Integrating into society the children from disadvantaged families, preventing school dropout;
- Facilitating integration on the labour market of young and long-term unemployed from the urban and rural areas;
- Developing a modern, flexible and inclusive labour market.

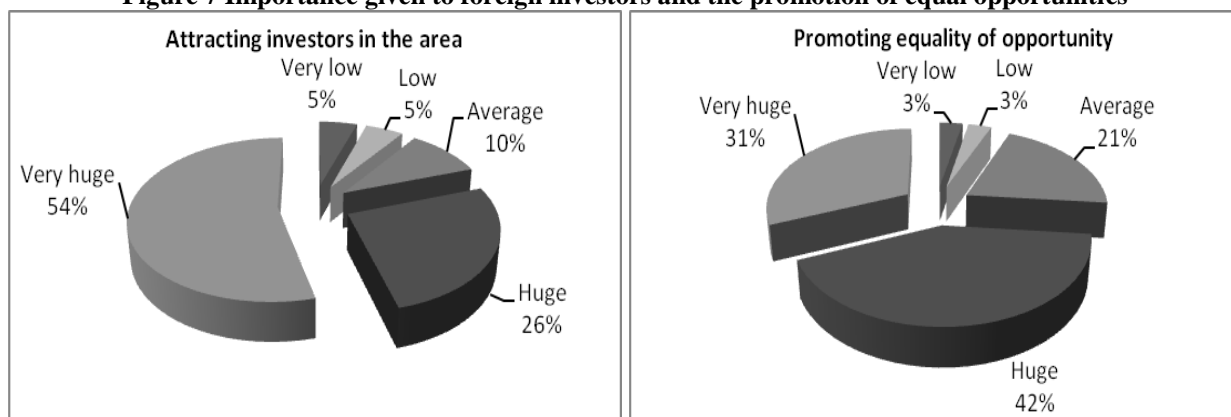
Institutions were questioned regarding investment priorities considered important to them. Identifying them was considered important to identify the way these priorities have been met through the submitted projects. The following priorities were considered important for the surveyed institutions (most of them public administrations):

- |                                    |   |
|------------------------------------|---|
| Investments in infrastructure;     | Employees' training;  |
| Social inclusion development;      | Increasing utility of lands;                                |
| Attracting investors in the area;  | Others: environmental protection, investments in facilities |
| Promoting equality of opportunity; |   |

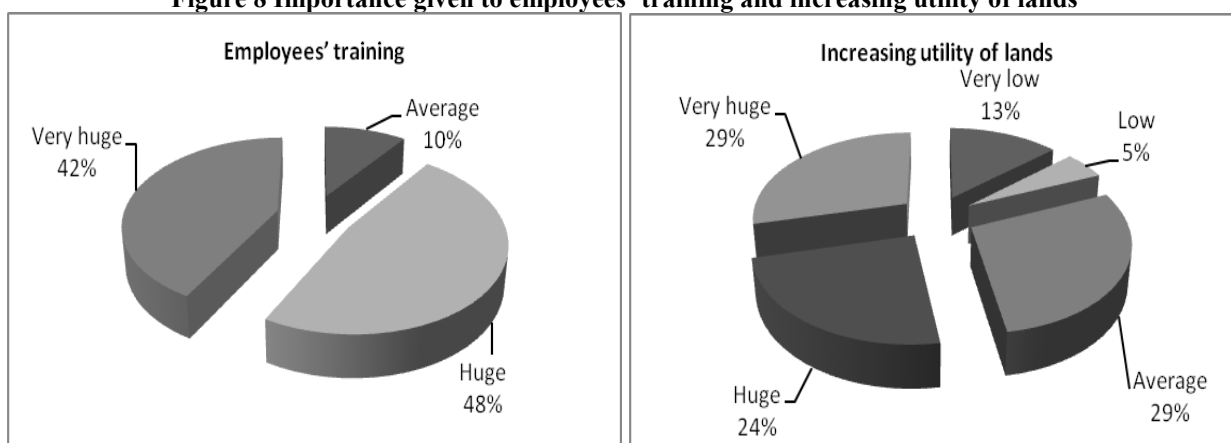
**Figure 6 Importance given to investments in infrastructure and to the development of social inclusion**



**Figure 7 Importance given to foreign investors and the promotion of equal opportunities**

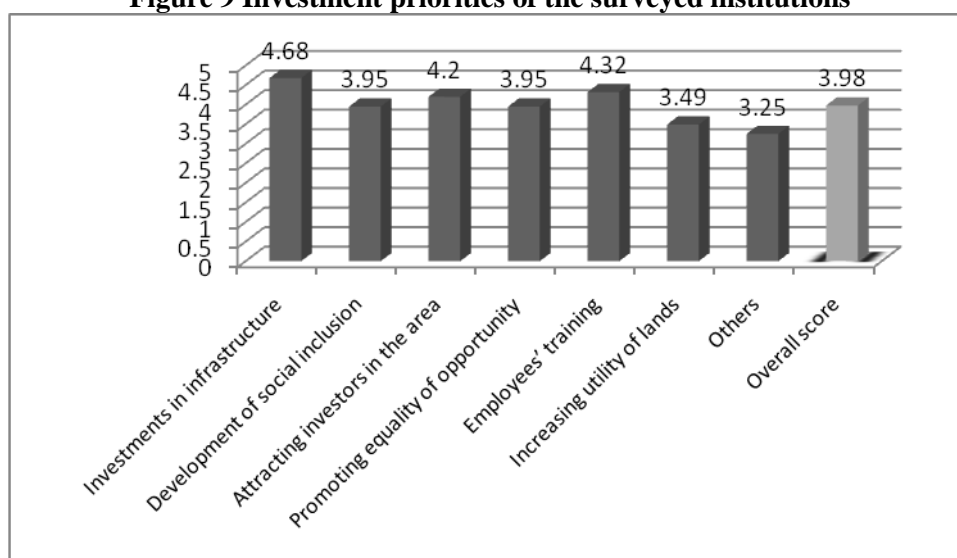


**Figure 8 Importance given to employees' training and increasing utility of lands**



Figures 6,7 and 8 show the extent to which each investment priority is considered important for the surveyed institutions. In the figure below, a score is given to each priority, calculated based on the coefficients of importance each institution has assigned.

**Figure 9 Investment priorities of the surveyed institutions**

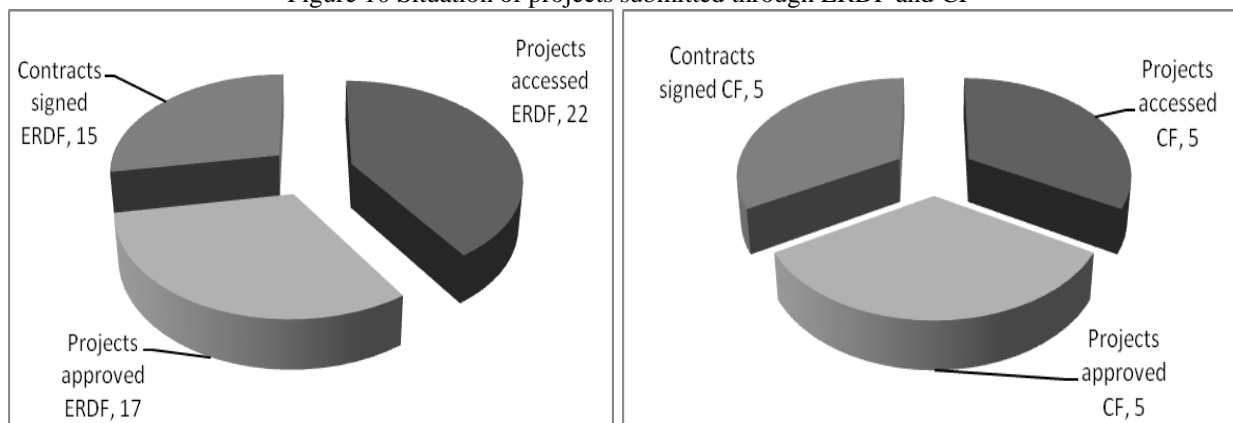


Three of the priorities, development of social inclusion, promotion of equality of opportunity and employees' training are often found among the objectives aimed by institutions in the projects submitted

on the European Social Fund, although we are referring to few projects, 38 submitted resulting in 25 signed contracts for a number of 73 institutions.

Another priority considered important and very important can be found in the projects accessed through the European Regional Development Fund (ERDF) and the Cohesion Fund (CF). Although in a smaller number, there are 27 projects submitted by the surveyed institutions. The situation of projects submitted through the two types of funds is outlined in the figure below.

Figure 10 Situation of projects submitted through ERDF and CF



It should be noted that town halls also receive governmental funds for investments in infrastructure (e.g. National Infrastructure Development Programme), funds that do not require such a difficult mechanism of accessing and reporting.

## Conclusions

The research, whose target group is represented by public institutions in Centre Region aims to obtain information from the respondents regarding the programmes accessed by them and the way they have been correlated to the institutions' investment priorities.

In terms of accessed programmes, the study shows that the number of programmes accessed increases directly proportional to the size of the institution and it decreases at the institutions that have more than 250 employees. The largest number of projects accessed/institution is held by the institutions with 50-249 employees. The projects' degree of approval increases the size of the institution, exception making the institutions with 50-249 employees. These ones, although they have a large number of application forms submitted, have received only 54% of approved projects. And with regard to the payment agencies, 58%-90% of the approved projects resulted in signed contracts.

The below table outlines the correlation of obtained results from the research to the hypotheses formulated in the methodology.

Table 1 Correlation of hypotheses with the obtained results

HYPOTHESES	OBTAINED RESULTS
The most accessed fund is the European Social Fund;	The most accessed fund is the European Social Fund, with 38 accessed projects, of which 22 through the Operational Programme Human Resources Development (SOPHRD) and 12 through the Operational Programme Administrative Capacity Development (OPACD).
The public institutions have had as main objectives in the carried projects the investments in human resources and infrastructure.	Public institution have had as main objectives the investments in human resources (youth, Romanis, unemployed, children from disadvantaged families, etc.).
The main investment priority of the social actors is infrastructure, followed by perfecting the attraction of foreign investors, etc.	The main investment priority of the social actors is infrastructure, followed by the employees' training and attracting foreign investors, etc.

Regarding the usefulness of the results, it should be mentioned that we consider the information obtained from this research as useful not only to possible beneficiaries of European funds but also to the entire Romanian society because investments that will take place with this European money will contribute to the increase of economic stability, with direct benefits to the population, such as the increase of jobs, development of social sector, increase of living standards, etc.

A recommendation for the project development institutions to obtain better results in the development and implementation of programmes with benefits on the community they represent is the correlation of main investment priorities to the developed projects (although the respondents claimed that infrastructure is the main investment priority, the objectives aimed by projects are mostly of investments in human resources).

Recommendations for institutions dealing with European funds in Romania:

Increasing availability in providing assistance and support to project development institutions both in completing the application form and in the technical and financial reporting;

Elaboration of Funding Guides that provide as detailed and explicit information to possible project applicants to ease the filling out of the application form.

Improving the absorption capacity of European funds – which has become a constant concern and worry of the government so far – requires first of all identifying the main gaps, insufficiencies and inefficiencies encountered by the persons responsible for writing the projects and implementing them.

Romania, as member state of the European Union should act towards stimulating the potential for economic growth, maintaining and getting high rates of growth. To achieve real convergence with the average development in the European Union, Romania's strategy should focus on the necessary investments to increase long-term competitiveness, to promote the creation of jobs and sustainable development.

## **7. Acknowledgements:**

Research conducted within the project SOPHRD/6/1.5/S/26, cofinanced by the European Social Fund through the Sectoral Operational Programme "Human Resources Development" 2007-2013.

## **8. References**

- Armenia, A., Abăluță, O., Curteanu, D., Popescu I. (2006) *Project managementul with external financing*, București: University Publishing House.
- Bârgăoan, A. (2009) *European funds - strategies to promote and use*, București: Tritonic Publishing House.
- Cătoiu, Iacob (2009) *Marketing research*, București: Editura Uranus.
- Datculescu, P. (2006) *Marketing research*, București: Brandbuilders Grup Publishing House.
- Ranf, D. "Project management – then and now", *Annals Universitatis Apulensis Series Oeconomica* (2011): 596-603, accessed at 5 of April 2012. [http://econpapers.repec.org/article/alujournal/v\\_3a2\\_3ay\\_3a2011\\_3ai\\_3a13\\_3ap\\_3a41.hm](http://econpapers.repec.org/article/alujournal/v_3a2_3ay_3a2011_3ai_3a13_3ap_3a41.hm).
- Ranf, D., Dumitrașcu, D. "The Current Stage Of Eu Funds Absorption By Financing Programmes - As Romania'S Performance In Project Management Practice". *Studies in Business and Economics Journal* (2011): 153-163, accessed at 01 of April 2012. <http://ideas.repec.org/a/blg/journal/v6y2011i3p153-163.html>.
- Verzuh, Eric (2003) *The Portable MBA in Project Management*, SUA: John Wiley & Sons Publishing House.

# ACTIONS, METHODS AND TOOLS FOR THE QUALITY EVALUATION OF EDUCATIONAL SERVICES - A COMPARATIVE APPROACH

**ROMAN Teodora**

*Associate Professor, Faculty of Economics and Business Administration  
Department of Management, Marketing & Business Administration  
Alexandru Ioan Cuza University, Iași, Romania  
e-mail: [throman@uaic.ro](mailto:throman@uaic.ro)*

**MAXIM Emil**

*Professor, Faculty of Economics and Business Administration  
Department of Management, Marketing & Business Administration  
Alexandru Ioan Cuza University, Iași, Romania  
e-mail: [emaxim@uaic.ro](mailto:emaxim@uaic.ro)*

**MANOLICĂ Adriana**

*Ph. D. Lecturer, Faculty of Economics and Business Administration  
Department of Management, Marketing & Business Administration  
Alexandru Ioan Cuza University, Iași, Romania  
e-mail: [manolica@uaic.ro](mailto:manolica@uaic.ro)*

**Abstract:** *A specific characteristic of the academic education is particularly the multitude of stakeholders types (students, employers, the community and parents, alumni, members of the education bodies, government bodies, auditors and assessors, users of research). This fact triggers the need of a high level of flexibility in order to meet the diversity of the needs and expectations shown by the categories involved. Since perpetual modifications take place at the level of all these elements and at the level of the workforce market, a continuous research and analysis of the changes is necessary, so that the educational content is permanently adapted to the external and internal reality.*

*Therefore, several universities in Romania were subject to study, in order to identify the internal assessment procedures used. The current study does not intend to offer positive or negative examples, but rather a comparative analysis of the internal assessment procedures identified in the public information made available by the education bodies.*

**Keywords:** internal assessment, quality standards, procedure, stakeholders

**JEL classification:** I 21

## 1. Introduction

Quality insurance is not simply an option, but rather a duty for organisations, being a must in the relationship with the clients, the main beneficiaries of the offer, as well as in the relationship with all those having direct or indirect interests connected to its existence and functioning. The extension of the focus from the client-centred quality to the quality for all those interested is an essential component of the philosophy of total quality management (TQM) and the starting point in the implementation of continuous improvement strategies. For the educational services this approach becomes more important if we take into account the role of education in the development of modern society. In this context, the analysis of the preoccupations of higher education institutions for a better understanding of the stakeholders' requirements regarding the quality of the performed activity and of the degree of satisfaction generated by the performance and the offer to the society becomes a fairly significant action. Starting from these considerations, we will identify and present hereafter several best practices used in the relationships with three stakeholder groups: students, graduates and employers. The approach should be extended as well to other groups of stakeholders (high schools, community, etc.) but the existent studies show less and irrelevant interest in this direction.

## 2. Stakeholders and education quality



In the context of the permanent socio-economic changes and the high demands towards educational services, education quality is more and more connected to the needs and expectations of society (Sangeeta, Banwet, 2004, Osoian, Zaharie, 2010). This approach towards the needs and expectations of different groups of interest (stakeholders) and/or clients implies the achievement of a set of quality standards, among which:

- a) highlighting the benefits associated with the investment in education, both at an individual and social level;
- b) guaranteeing the credibility of diplomas issued, the quality of the graduates' training;
- c) ensuring transparency and monitoring the educational system.

Moreover, the pressure of the highly utilitarian governmental expectations on the educational systems (from an economic standpoint, the increase in education productivity is more stringently aimed at), triggers the need to increase the degree of reactivity of educational systems and the adjustment to the economic needs of society. Furthermore, the occupation of labour force having graduated from higher education institutions (graduates' employability) becomes a performance indicator for the higher education quality forcing the educational institutions to pay increased attention to this issue.

Following the model of the industrial sector, the educational system has adopted the notion of quality as a central element for the appreciation of performance. In spite of this, quality has remained a long-debated conceptual notion, for which no consensus has been reached and which is still defined from multiple perspectives. Due to the numerous approaches, quality has not yet been given a universally accepted definition either within higher education, remaining a debated concept on account of the perspective it is seen through, *stakeholder relative*. Given the difficulties encountered when trying to define *quality* in higher education, it becomes necessary to confine the quality evaluation criteria used by the various groups of clients and to integrate them in the strategies aiming to improve the educational process (Lagrosen, Seyyed-Hashemi, Leitner, 2004). In this respect, for instance, quality represents a preoccupation of stakeholders' groups, being attractive for employers, both as „users” of graduates, and as collaborators in scientific research or training activities (Harvey and Green, 1993).

## **2.1. Groups of stakeholders**

The diversity of groups of stakeholders and/or clients makes the identification of their needs more difficult and thus the development of mechanisms ensuring their identification in due time represents a necessity of educational institutions. Obviously, the perspectives of these distinct categories are not entirely the same, the more so as in the case of higher education institutions. We should notice though the use of two terms: *stakeholders* and *clients*.

Taking into consideration the criticisms regarding the implementation of total quality management in the educational system, the specialty literature has distinct opinions about the appropriate use of the term *client* for higher education. One of the solutions proposed to avoid these misunderstandings is to use the less used notion of „stakeholders” (interested parties). Srikanthan and Dalrymple (2003) identify four categories of stakeholders, which they relate to the quality approaches proposed by Harvey and Green (1993): providers, users of products, users of results, organisation personnel.

The quality of educational services is of interest for clients and other parties involved, yet it is systematically evaluated through specially designed methods and procedures by the providers of these services (educational institutions) and by external specialised bodies.

In compliance with the legal provisions, the education quality insurance is an obligation applying to all institutions part of the national higher education system. The education quality insurance is compulsory and comprises the internal evaluation, conducted by the institution itself, and the external assessment, regularly performed according to legal provisions.

## **2.2. Quality evaluation by the providers of educational services**

The analysis of specialty literature and of practices in different higher education institutions highlights a wide range of methods and techniques used in the relationships with stakeholders:

- questionnaire-based surveys
- scales of expectations/perception evaluation and clients' satisfaction (SERVQUAL, SERVPERF)
- the critical incidents technique
- observation studies

- focus-group discussions
- in-depth interviews.

### 3. External evaluation of education quality

The external evaluation is based on the ability of higher education institutions to provide proof of the learning and research results and performances and on the check-up of their mirroring the reality, including the verification of students' activity in relation to the assumed standards.

The Romanian Agency for Quality Insurance in Higher Education (ARACIS - Romanian abbreviation) applies the principles and approaches of academic quality insurance in compliance with the legal provisions, in order to strengthen their applicative feature and to better serve the beneficiaries according to the activities run in universities and their actual requirements. To this aim, ARACIS closely cooperates with all the universities involved, with the Ministry of Education, Research, Youth and Sports, as well as with students' representatives, unions, professional associations and companies.

As far as education quality insurance is concerned, three fundamental fields of organisation and functioning are taken into account when an organisation already is or attempts to become a higher education provider. The criteria, standards and performance indicators are stated so that the focus should not only be on the compliance of an organisation with a predetermined or predefined set of quantitative and qualitative conditions, but also on the deliberate, voluntary and proactive involvement of that institution in order to reach performances translated into effective results.

**The areas of quality insurance** are the following:

A. ***Institutional capacity***: the institution has a coherent organisation and an adequate management system, it has the necessary facilities and financial resources necessary for a stable short- and medium-term functioning as well as human resources on which one can rely in order to achieve the mission and the objectives.

B. ***Educational efficiency*** refers to the organisation of teaching, learning and research processes in terms of contents, methods and techniques, resources, selection of students and teaching and research staff, so that it obtains the learning or research outcomes clearly stated in its mission. The quality management focuses on those strategies, structures, techniques and operations helping the institution prove that it evaluates the performances of education quality insurance and improvement and it possesses information systems testifying the learning and research outcomes.

The importance of this area resides on one hand, in the focus on the management of quality insurance for all the organisation's activities and, on the other hand, in making public the information and data proving a certain quality level.

The three areas are interrelated and their use is mandatory.

### 4. Quality evaluation by means of measuring the stakeholders' requirements and satisfaction

Given the multitude of stakeholders' groups in higher education as well as the variety of their requirements, one of the methods to solve the potential differences implies the identification of the common points that may bring them together. In this respect, for each of the groups of stakeholders it is necessary to identify their perspective, which should be integrated as equitably as possible in the institutional strategy.

Another solution was to make a hierarchy of the groups of clients in relation to their importance. Owlia and Aspinwall (1996) conducted a study applied on authors which had published works on this topic, requesting the hierarchy of higher education's clients. The highest importance was assigned to the students' category (1), followed by employers (2), society/state (3), institution's employees (4) and students' families (5). In our opinion, such a hierarchy has certain constraints, of which: those generated by the characteristics of the sample of the responding population (teaching staff from various fields), the impossibility to set a general classification of clients, without specifying at least a certain component/dimension of the educational system; the lack of criteria/benchmarks for hierarchy. Therefore, we believe that the most appropriate manner to integrate the perspectives of several groups of clients is to identify their common and different aspects on the relevant elements for education quality.

Having in view all these, when implementing the total quality management the higher education systems should consider the clients' input and use it in order to improve the educational process and implicitly the final product. On the other hand, it would be good for any prevalently client-oriented organisation to become aware that it should not entirely depend on the expectations and needs stated by the clients, or at least not on a single group of clients. Regardless of the existing debates about the possibility and

justification of integrating the clients' requirements, their needs should be well known by the educational institutions. The expectations of groups of interest and the level of satisfaction concerning the service quality may be identified by means of the systematic analysis of their perspective, using various methods such as: focus groups, questionnaires/scales for satisfaction evaluation, in-depth interviews, observation studies, the critical incidents technique. An important element is the regularity of these analyses, both at labour market level and students' level who opted for another institution. The information obtained is essential for the decisions taken at institutional level.

Starting from the directions identified by the specialty literature as being definable for service quality and in order to offer a synthetic image of the factors that may influence the quality perceived by the client, we believe it is necessary to include both the clients' expectations and certain factors depending on the external context. Thus, the clients' expectations may be determined by their previous experiences, by the clients' needs (which may be implicit, explicitly present or potential), by the value that the client assigns to that respective service as well as by the advertising manner of that service on the market (the marketing-related aspects). On the other hand, the expectations and the quality level perceived may be also influenced by economic, social, cultural or institutional factors (the labour market characteristics, the training level of the workforce, values, financial resources, organisational culture, and interpersonal interactions).

Thus, we may ascertain that a specific feature of higher education is the multitude of stakeholders' types (students, employers, community and parents, alumni, members of educational institutions, governmental parties, auditors and evaluators, end-users of research) that can be classified in four big groups: education providers, educational services users, product users and the employees from the educational institutions (Srikanthan and Dalrymple, 2003). This fact implies the need for a high level of flexibility that should meet the diversity of needs and expectations expressed by the categories involved. Since at the level of all these elements and namely at the level of labour market permanent changes take place, it is necessary to study and continuously analyze the changes, so that a permanent adjustment of the educational content to the external and internal reality should occur.

The internal dimension of the academic quality is built based on the legislation in force and according to the specific characteristics of each university, to the customs and the cultural patrimony of the academic education in our country. With this approach, quality assurance becomes a process adapted to the institutional specific characteristics and is a mechanism that always helps the academic results or performance improve.

According to the principles governing the university autonomy, the responsibility of guaranteeing procedures and instruments for assessing quality in education is held by each and every institution, as long as it complies with the national regulations.

In education quality assurance, three fundamental fields are to be mentioned when it comes to the administration and functioning of an organisation that wishes to become or already is an academic education body. The performance criteria, standards and indices are uttered in such a way so as not to stress only the meeting of a predetermined or predefined set of quantitative and qualitative conditions, but also the institution's deliberate, volunteering and proactive commitment to fulfil certain performance criteria that can be proved by means of actual results.

To identify the internal assessment instruments used to find out the requirements and fulfilment of various customer categories, the following universities have been studied: "A.I.Cuza" University of Iasi, the University of Bucharest, "Babes Bolyai" University of Cluj Napoca, the Bucharest Academy of Economic Studies, the West University of Timisoara, University of Oradea, "Valahia" University of Târgoviste, "Vasile Goldis" West University of Arad.

#### **4.1. Internal assessment regarding the students' requirements and fulfilment**

This type of assessment is done using specific instruments, usually questionnaires, and aims at measuring the performance in the educational process by means of assessing the teaching staff. Considering their purpose, that is, the assessment of the teaching staff, these questionnaires identify above all the fulfilment, to the disadvantage of the requirements.

Following the requirements of the national standards for the assessment and certification of the study curricula, most universities use questionnaires for the assessment of the teaching staff or of the activity during the lectures and/or seminars. These questionnaires are also intended to assess the teacher's activity in order to continuously improve the teaching and planning activities, as result of the students' suggestions. The questionnaire templates used highly differ from one university to another in terms of the content, size and the obtained information. Three types of questionnaires are used:

- Questionnaires to assess the teaching activity (courses);

- Questionnaires to assess the activity during seminars and laboratory practice;
- Questionnaires to globally assess the teacher's activity (during the lecture and seminar activities).

All the assessed universities have a Commission for quality assessment and assurance, whose purpose is to systematically survey the students' fulfilment, to assess the quality of the teaching activities every semester, to permanently improve the content of the subjects and the structure of the education curricula, based on the feedback received from students.

To measure students' fulfilment regarding the teaching activity (lectures and seminars), all the assessment tools used are based on three important axes:

- teaching-learning activity
- material basis
- fulfilment regarding the services and facilities they enjoy within the university

The purpose of assessing the lectures/seminars and the teaching techniques is to provide information for the teacher in order to improve the teaching process, as well as for the faculty management team, helping them make decisions regarding the teaching staff and the courses.

In short, the situation in the assessed universities is the following:

**Table 1: Assessment of the students' perception and fulfilment**

		UAIC	UB	UBB	ASE	UO	UVTG	UVTM	UVG
Indirect assessment	Assessment of the professors	x	x	x	x	x	x	x	x
Direct assessment	Assessment of the students' fulfilment	x		x		x			
	Assessment of the learning environment		x						x

**UAIC** - "Al.I.Cuza" University of Iași

**UB** - University of Bucharest

**UBB** - "Babeș Bolyai" University of Cluj Napoca

**ASE** - Bucharest Academy of Economic Studies

**UO** - University of Oradea

**UVTG** - "Valahia" University of Târgoviște

**UVTM** - West University of Timișoara

**UVG** - "Vasile Goldiș" West University of Arad

#### **4.2. Internal assessment on the analysis of alumni's requirements and fulfilment**

Due to the fact that the national education assessment standards set as a compulsory requirement that no less than of 40% of the alumni from the first three series should have a permanent employment contract on jobs corresponding to the specialty obtained at graduation, universities set their own procedures to measure the level of insertion of graduates on the employment market rather than the level of their fulfilment. Clear examples are the following types of questionnaires used by the assessed universities:

Al.I.Cuza University – Alumni Questionnaire

Babes Bolyai University – Alumni's Opinion regarding the Quality of Education

Oradea University – Alumni Registration Form

Vasile Goldis Arad University – Alumni Questionnaire

#### **4.3. Internal assessment on the analysis of employers' requirements and fulfilment**

Taking into account the methodologies described by the publications related to this field, we identified a large number of studies approaching the perspective of employers on different levels. There

are also may ongoing investigations on the international level (aiming to compare the methods and criteria of selection used by employers in different countries), on the national level (analysing the employers' requirements which should cover the total number of graduates of different educational agencies), as well as on an institutional level (ongoing investigations regarding the employers' requirements aiming to adapt the educational offer to those requirements).

Universities perform the internal assessment correlated with the employment market during certain projects on a less regular basis.

#### **4.4. Internal assessment on the analysis of employees' requirements and fulfilment**

Since they are not compulsory according to the education assessment standards, the determination of methods for identifying the employees' requirements and fulfilment does not represent a priority for the university management.

The following aspects shall also be considered:

- The need of further study both in the same and in related fields;
- Requirements on the development of management and the quality assurance;
- Factors impeding the need of further education (lack of time, lack of resources, family problems, poor quality of courses, etc.);
- Requirements on the organization of courses;
- More options among the educational offer.

#### **5. Conclusions**

Analysing the documents provided by the institutions, we have noticed that all universities have certain good practices for identifying the students' fulfilment level. We consider that all these procedures shall apply since this is mandatory in the authorization/accreditation process. Due to the fact that they are not compulsory, according to the national assessment standards, the interest in identifying the employees'/employers' requirements and fulfilment is rather sporadic and usually raises on the occasion of certain projects.

##### **Conclusions on the analysis of students' requirements and fulfilment:**

- between 50% and 90% of the students favourably appreciate the assessed aspects
- the most appreciated is the information regarding:
  - admission
  - specialized knowledge obtained during the course
  - the class rooms
  - access to information on the faculty
- approximately 50% of students positively appreciate students' counselling services

##### **Conclusions on the analysis of alumni's requirements and fulfilment:**

- Both the questionnaires constructs and the measuring scales are oriented towards the determination of the following elements:
- Employment percentage – how many alumni were employed after the graduation (acceptable ceiling of 70%)
- The time span between graduation and employment (max. 18 months)
- Percentage of postgraduate studies

##### **Conclusions on the analysis of employers' requirements and fulfilment:**

- If it is not a compulsory requirement, the analysis of employers' requirements and fulfilment will only be a desired element
- "Babes Bolyai" has already undertaken such a study, nevertheless it was done during a project
- "Al.I.Cuza" University has also developed a similar study, also during a project in 2000.

##### **Conclusions on the analysis of employees' requirements and fulfilment**

Due to the fact that they are not compulsory according to the education assessment standards, the determination of methods for identifying the employees' requirements and fulfilment do not represent a priority for the university management.

Once the requirements and fulfilment of the interested parties are identified, universities shall focus on developing the necessary processes in ensuring the growth of the fulfilment level. The mere recognition of the stakeholders' problems is not enough and, therefore, establishing strategies in solving them should also be considered.

We should emphasise the fact that the list of criteria is neither normative nor exhaustive. Every institution may implement additional criteria regarding the internal assessment.

## 6. Bibliography

- Cheong Cheng Yin, Wai Ming Tam, (1997) "Multi-models of quality in education", <http://www.emeraldinsight.com/journals.htm?issn=09684883&volume=5&issue=1&articleid=839568&show>
- Harvey Lee, Green Diana (1993), Defining Quality, Assessment & Evaluation in Higher Education, issue 18, vol. 1, p.9-34
- Joseph, M., Joseph, B.,(1997) "Service quality in education: a student perspective", Quality Assurance in Education, Vol. 5 Iss: 1, pp.15 – 21
- Lagrosen, Stefan, Seyyed-Hashemi, Roxana, Leitner, Markus (2004) "Examination of the dimensions of quality in higher education", Quality Assurance in Education, Vol. 12 Iss: 2, pp.61 - 69
- Owlia, M., Aspinwall, E., (1996) "A framework for the dimensions of quality in higher education", Quality Assurance in Education, Vol. 4 Iss: 2, pp.12 - 20
- Roland K. Yeo, (2008) Brewing service quality in higher education. Characteristics of ingredients that make up the recipe, Quality Assurance in Education, Vol. 16 No. 3, 2008, pp. 266-286
- Rowley, J.(1997) Beyond service quality dimensions in higher education and towards a service contract, <http://www.emeraldinsight.com/journals.htm?issn=09684883&volume=5&issue=1&articleid=839566&show>
- Sangeeta Sahney, D.K. Banwet, S. Karunes, (2004) "Conceptualizing total quality management in higher education", The TQM Magazine, Vol. 16 Iss: 2, pp.145 - 159
- Srikanthan, G. Dalrymple, J. (2003), Developing alternative perspectives for quality in higher education", International Journal of Educational Management, Vol. 17 Iss: 3, pp.126 – 136
- Zaharie, M., Osoian, C., Ciumas, C., Opre, A. (2011), Employers' hiring behaviors in a developing country – input forenhancing the quality of higher education, 2nd International Conference on Education and Management Technology ICEMT 2011, IACSIT Press, Singapore
- <http://www.valahia.ro/cgi-bin/index.cgi?content=regulamente&language=ro>
- [http://www.ase.ro/ase/management/index.asp?item=Managementul calitatii ASE](http://www.ase.ro/ase/management/index.asp?item=Managementul%20calitatii%20ASE)
- [http://www.unibuc.ro/n/despre/legi regul.php](http://www.unibuc.ro/n/despre/legi_regul.php)
- <http://www.uoradea.ro/romanian/topic/37/DepartamentuldeAsigurareaCalitatii.html>

# DIAGNOSIS OF STRESS FACTORS IN MILITARY ENVIRONMENT

*RUS Mihaela*

*assistant professor, Ph.D.*

*Faculty of Law, Administrative Science and Sociology*

*Department of Law, Administrative Science and Sociology, "Ovidius" University, Constanta, Romania,  
psiholog\_m@yahoo.com*

**Abstract:** *This paper aims to highlight some aspects of military personnel and to identify sources of stress in military organizations, different levels of organization. The military is a pretty average applicant stress factors have a high enough frequency, and individual personality that supports entry in this environment suffer certain changes that do not have certain characteristics which may facilitate increased tolerance to stress. Therefore proceed from the following hypothesis: (Hs) a rigid professional environment lead to organizational stress. Military environment involves stress, due to its specific applications are considered rigid and authoritarian. Lot of subjects is homogeneous, consisting of 80 subjects, gendarmes, contractual employees, military personnel with permanent contracts and civilian employees of the Romanian Gendarmerie, the OSI questionnaire applied. (Organisational Stress Inventory)*

*Responses of the trial reveals the existence of rigid structures and distorted thinking of reality.*

**Key words:** stress, organization,,personality, employees

## **JEL classification:**

I1 - I - Health, Education, and Welfare

I14 - Health and Inequality

I15 - Health and Economic Development

## **1. Introduction**

Early life events research link to the publication in 1967 of methods for quantifying the action of these events by life events scales of Holmes and Raheem, saying that the various changes of life (or death of spouse, relocation, change of employment, divorce, etc..) involves the same load, recovery and therefore, the basic idea consists in assessing situational stress, stressful process intermediaries between stimulus and stress response remained ignored. Whatever the significance of Han, the frequency of various stressful life events (ie death of partner, moving, changing jobs, etc..) Entail significant adaptation reactions of the individual. If they do not fire because the requirements are beyond the resources objectives and / or the individual's subjective, mental decompensation may arise and / or physical.

Critical concept of life events (Filipp, 1981; Katsching, 1980) refers to the failure of their emotional quality assessment, placing them poor in the context of individual biography and the omission affected the perception, evaluation and treatment specific person. In addition, consider Petermann (1981), retrospective assessment of life events does not allow an assessment of conditional and causal relations between event and its consequences. Because life events have specific quality and their effect only through perception, evaluation and intrapsychic processing, they need not only have pathogenic action, but may also have contributed to personality development (Baltes, 1979; Filipp et al ., 1980). Research results, and those of Olinger, Kuiper & Shaw (1987), Kuiper and Olinger (1986) etc. studies show that pathogenic action should not be thought life changes in a linear fashion, but probably requires a multidimensional and optical tranzacționistă mediation as performed by cognitive stress theory of Lazarus and Launier (1978). Resources and individual skills (coping behavior) decide on whether an interaction between body and stressors lead to pathological consequences

However, Moss (1990) believes that sufficiently differentiates between negative life events and current stressful life circumstances (health, family conflicts, etc..). Of the many research topics devoted depression Fiedler (1991) off four areas:

- 1) social stress and social support as antecedents of depressive disorders;
- 2) social stress and social support as a result of mental depression;
- 3) moderate effect, protection of personal resources and coping behavior;
- 4) the significance of personal moderating variables.

But, as stated Schwartz & Leppin (1989) from a meta-analysis of 70 empirical studies supported interdependence between the values of popular disturbances as consequences of SP and social support variables may be only partially glimpsed as they appear inconsistent. The differential construct

"social support" is the social network. It should be understood as a model of social relations and can be described accurately with features such as size, density, durability and consistency (Sommer & Fydrich, 1989), being considered as more oriented sociological concept. Social support is more psychologically oriented and it would be the result of social interactions and their processing by the individual. Meet here the structural features of social networking, social interaction features as individual characteristics. For some authors (Sommer & Fydrich 1989, Cohen & Syme, 1985) containing components of social support are: emotional support (eg, proximity, trust, acceptance), informational support (eg, relevant information for action); practical support and / or material (financial support, material support, etc..) social integration (insertion in the network of social interaction, agreement on values and perceptions).

Barrera (1986) suggests a different perspective analysis of social support: structural - people who help in a situation or help, cognitive - that perception of support and certainty or awareness of social support (perceived social support and social cognition); interactive - action support. As stated G. Richter (1996), individuals objectified and reflected deficits in social network can be clarified by their meaning rather idiografică by cognitive processing and coping strategies of the subject or the subjective perception of social support it. The theory of cognitive, psychological stress is an imbalance as intense, subjectively perceived, of the demands imposed on the body and its response capacity. To describe SP, Lazarus introduced the following concepts: threat (treath), evaluation (Appraisal) and adjustment (coping). The threat is defined by three characteristics:

- a) anticipates facing a dangerous situation or a negative experience;
- b) guiding future conduct;
- c) is dependent on cognitive processes (perception, thinking, memory, learning).

It is shown that SP occurs when anticipated threats, real or imagined, on: the physical, the mental state and positive interpersonal and social relations. Also, the distinction between anticipated threat, which is a subjective, and confrontation, the objective phenomenon. Studies conclude that anticipation is more intense psychophysiological responses than confrontation. Where there is no time anticipatory, psychophysiological reactions may occur after the confrontation. Sometimes sources intrapsychic threat lies in the dynamics of the individual and are aware only events that cause (anxiety, restlessness, depression, etc..

Resulting from the anticipation of threat stimuli are appreciated by the individual as harmful, neutral or beneficial cognitive evaluation processes, understood as mental activity involving judgment, reasoning, deduction, discrimination, options which data are assimilated into a cognitive framework.

Lazarus distinguishes three stages of evaluation: 1. Primary assessment - that the situation is defined as harmful or not, ending with a sense of self confidence, or rather of weakness. Two. Secondary Assessment - that the subject must choose the adaptive alternatives are close at hand. Three. Revaluation, which refers to the initial perception of benign changes in harmful, or vice versa, as a result of new information, including success or failure of the first attempts adaptive. Stressful nature of the stimulus is determined by two broad factors:

a factors - related to the configuration of stimuli, the ambiguity of indicators of the nature of confrontation arising from lack of information or conflicting data, the balance of threat stimuli and producing individual and environmental resources.

b-dependent internal factors of the individual psychic structure: the set of reasons, belief systems, beliefs and attitudes up to the various aspects of the environment and to themselves, intellectual resources and education.

If the stimulus is evaluated as threatening to trigger processes to reduce or eliminate it, called adjustment processes (coping).

Adjustment, considered a key concept in understanding the psychological stress is defined as cognitive and behavioral efforts to reduce body, tolerance and environmental control requirements that exceed individual resources (self-assessed). It emphasized the distinction between adaptation, which often means the automatic responses, well established, especially biological and sensory adaptation and adjustment that occurs when there is valid and requires an effort that involves cognitive and behavioral strategies.

Lazarus and Miller are two types of adjustment strategies: direct action, directed at changing the intensity or eliminate stressors (strengthening individual resources, attack, avoid, block), and indirect actions aimed at controlling emotional responses to stress (strategies "palliative" and unconscious psychological defense mechanisms) and which Pearlin add "change mode of looking at it in a manner to reduce the threat".



Showed that adjustment strategies aimed at the following: maintaining distress tolerable limits, maintaining self-esteem, preserving interpersonal relationships, placing the situation in other circumstances. To achieve these objectives, the individual may use multiple strategies to adjustment (Lazarus identifies a number of 68 forms) simultaneously or sequentially, with different levels of consciousness.

The central feature of the SP theory of Lazarus et al. is revealing in assessing cognitive factor in determining the pattern of responses and the choice of adjustment methods. Selye describes three distinct stages in the evolution of general adaptation syndrome:

- 1) alarm reaction stage, which comprises two phases: "shock" - Phase of "contrașoc";
- 2) stage of resistance (to return or "extended anti shock");
- 3) stage of exhaustion.

In the current period gendarme is subject to numerous and varied applications for which was and is more or less trained and motivated. This is beginning to feel gradually but steadily, I own an area more frequently and assaulted interest (sometimes affected) that is what his own psyche, as the soldier is in contact with the environment, contact is / becomes a bi-univocal relationship, the interference and influence. Thus both "equation terms" man and the environment is in a sustained transformation, formation, structure due to internal or external influences last being bi-univocal. From internal sources can be retained: personal insecurity, family conflicts, financial problems, physical health.

Of the foreign service may be given to applications demanding repeated blockage problems, equipment failure, inadequate leadership, lack of team cohesion. From all this we can say precisely that the military is constantly confronted with a process of adaptation-integration / and the environment which in turn registers its assimilation process (altering their structure) of individual and / or group. All these very complex processes, the continuous recording block, recovery, intensity fluctuations, etc.. Produce the effect of stress on the individual. To better understand the complexity of action agents stressors and their influence on military can present some findings of the special circumstances of the battlefield and their aftermath.

Most wounded and showed less anxiety and other symptoms of combat stress, unless continuous mutilation. Paradoxically, wounded, anticipating a solution to escape from the stressful situation of the battlefield, remove source of anxiety. Also some soldiers hospitalized for physical injuries, even in more severe such as paralysis or amputation of limbs, mental disorders do not show appreciable. In contrast, some of those hospitalized due to mental problems such as severe symptoms of depression, obsessive thoughts and delusions were more psychologically disturbed for some minor adverse psychiatric reactions than acute trauma.

In studies of personality traits of Israeli soldiers who won the Yom Kippur war shows that over 25% of them were treated before the war psychological and 12% of them have had difficult experiences before the Six Day War. Around 37% of soldiers had clear history of instability that may be prone to the psychological stress of combat action, on the other hand the other 63% have not shown too early problems and could not be considered a risk to combat stress. Other soldiers were so accustomed to anxiety, that could cope with it almost automatically, while soldiers suffering serious anxiety for the first time can be traumatized psychologically acute, and thus removed from the battle.

The military is a pretty average applicant stress factors have a high enough frequency, and individual personality that supports entry in this environment suffer certain changes that do not have certain characteristics which may facilitate increased tolerance to stress. Lack of understanding from superiors, bureaucracy, many approvals necessary for solving personal problems keeps the military in a state of tension stress triggers. Stress factors is one of the causes that can lead to personality disorders, which can lead to extreme situations identified that may endanger not only their own lives and others lives.

## 2. Methology of research

### 2.1. Objectives of research

#### 2.1.1.General objectives

-identify stress factors within the organization;  
stress-level description of the organization;

-capture dynamics of the stressor and the individual;  
 -exploring means by which individuals cope with unwanted events.

### 2.1.2. Specific objectives

Identification and the stress factors in a military style organization.

### 2.2. Hypothesis of research

HS1. Voltage sources are perceived differently according to the department in which subjects work;

### 2.3. Tools

The research used a questionnaire related stress (OSI - Organizational Stress Inventory). Questionnaire contains 126 items, divided into seven dimensions:

Dimension I: image of the service they provide - 12 items; dimension II: the current state of physical and mental health - 18 items, size III: daily behavior of respondents - 10 items; Dimension IV: sources of stress at work - 40 items, dimension V: how to adjust to stresogenă - 10 items; dimension VI: the extent to which the subject controls the situation stresogenă - 16 items - size VII: axiological system of respondent - 20 items.

### 2.4. Participants

Lot of subjects is homogeneous, consisting of 80 subjects, gendarmes under contract, permanent contract military personnel and civilian employees of the Romanian Gendarmerie, UM 0615 Tulcea. Homogeneity lot of subjects is given both by profession and gender distribution of the sample: 78 men and two women.

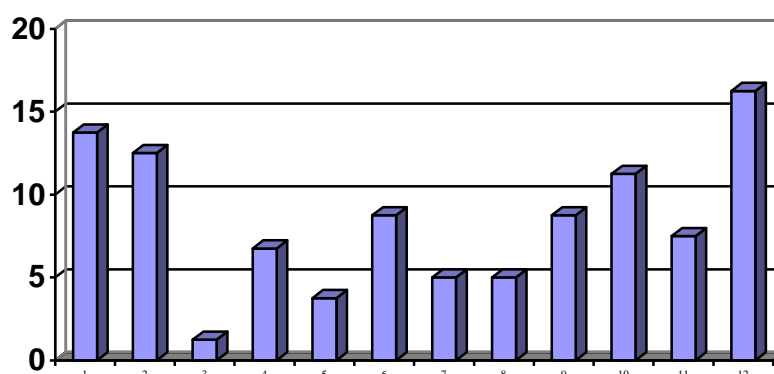
### 3. Data analysis and interpretation

In the entire sample chose to research 16.25% of the subjects considered the most important stress factor is the lack of professional satisfactions, followed in descending order of compliance (13.75%), relationship with superiors (12.5%), relationship with colleagues (8.75%), possibility to sanction (8.75%), overload of work tasks (7.50%), opportunities for promotion (6.25%), relationship with subordinates (5%), skills needed (5%), responsibility for the action of others (3.75 %) and job security (1.25%).

Table 1. A hierarchy of stress factors in the organization

Rank Item	not at all important	Very less important	less important	Important	very important
Relationship with colleagues	30 %	22,50 %	28,75 %	10 %	8.75 %
Relationship with subordinates	30%	33,75%	20%	11,25%	5%
Compliance	17,50%	25%	26,25%	17,50%	13,75%
Job security	41,25 %	33,75 %	20 %	3,75 %	1,25 %
Opportunities to promote	27.50 %	31.25 %	22.50 %	12.50 %	6.25 %
Responsibility for the action of others	18.75 %	43.75 %	28.75 %	5 %	3,75 %
Special skills required	42,50 %	30 %	15 %	7,50 %	5 %
Relationship with superiors	13,75 %	20 %	27,5 %	26,25 %	12,50 %
Possibility to sanction	25 %	18,75 %	27,50 %	20 %	8,75 %
Relationship with person who violates the law	8,75 %	22,50 %	28,75 %	28,75 %	11,25 %
Overloading duties	18,75 %	26,25 %	28,75 %	18,75 %	7,50 %
The absence of professional satisfactions	17,50 %	22,50 %	28,75 %	15 %	16,25 %

**Figure 1. Hierarchy of stress factors in the organization**



Following the hierarchy of stress factors by employees of the organization, it appears that they consider that internal compliance and relationship with superiors is a potential stressor factors higher than the relationship with people who break the law.

This part of research aimed at the general objective of this paper, "identifying stress factors within the organization," specific objective "ranking of stress factors within the organization", the study confirmed the hypothesis number 1, in which the formula presumption "voltage sources are perceived differently by the subjects, according to the department in which they work."

Trying to do an analysis on the dimensions of the questionnaire, the interpretation of data obtained we can draw the following aspects.

#### **Dimension I. The picture on the service they provide**

Only 6.3% of respondents say they feel a lot of dissatisfaction related to the job they perform. Their discontent is how communication within the organization, how they feel stimulated by the work, since they feel they can develop and fulfill the existing service and psychological atmosphere in the military unit. A lot of satisfaction in relation to organizational climate showed 18, 75% of subjects batch.

Only 1.3% of subjects gave answers indicating lot great satisfaction, and that only 5 of the 12 items of size. Six and six answers indicating "some satisfaction" gave 41.3% of the lot used by research subjects.

#### **Dimension II, the current state of physical and mental health**

Subjects requires an assessment of personal health and has two parts:

- Part A, which includes 12 items and requires a subjective assessment of health;
- Part B, with six items require an objective assessment of health, emphasizing the existence of somatic symptoms accompanying stress accumulation

**Table No. 2. Descriptive statistics for dimension 2 OSI**

	never	Very rarely	rarely	sometimes	frequently	very frequently
Number of subjects	80	80	80	80	80	80
Mean	1.2000	2.7125	2.5500	2.7125	2.4125	.4250
Median	.0000	2.5000	2.0000	2.5000	2.5000	.0000
Module	.00	2.00	1.00	2.00	3.00	.00
St. deviation	1.8920	1.9106	1.9481	1.8225	1.2994	.8827

Subjects who claim never to have ridden past mistakes or actions that never happened that during a working day to feel disturbed without clear knowledge of this state or the reasons that have never put signs questions about its capacity for judgment and have never felt a loss of confidence in itself constituted only 5% of subjects batch.

Subjects who stated that very rarely have moments of doubt about their work, that very rarely feel overworked, that rarely worry about any or very rarely happens that the assignments seem to be too many are just 10.1% of subjects batch. 36.3% of subjects stated in items 3 and 4 of the scale that sometimes happen to feel a disturbance, without clear reasons or that are often times when they feel that life requires much effort. 8.8% of respondents felt these things more often, the answer of "sometimes"

was given at 6 and 8 of size items.  
 → 21.3% of respondents gave an average of at least one response confirming that often have problems and feel the tension in the workplace.  
 → 23.8% of respondents admit to two of the items size, often doing their worries are tense, and often make them feel a strain that struggle.  
 → 36, 3% of subjects gave the answer that shows the frequency responses indicating tensions at the three scale items.

### Level I of dimension II. part B

- 37.5% of subjects used in research have avoided lot in their choices to "never" when they were asked about frequency of physical problems manifest. They have been reluctant to say they never felt unexplained fatigue or exhaustion, or that have never tended to eat and drink more than usual and that never had a choking sensation and dizziness.
- 11.3% of subjects gave lot never answer one of the six items of the scale. They have never been questioned about the above symptoms as tingling sensations and about twinges in certain parts of the body, and of weight to get up from sleep in the morning.
- 22.5% of subjects gave the answer only twice and never
- 18.8% gave the answer three times.
- Only 2.5% of respondents said that they could never have had these symptoms before

### Dimension III: daily behavior of the respondent

It is, again, consists of two parts:

- Part A - containing 6 items - try to capture the degree of influence of external events on subjects behavior.
- Part B, containing four items - try to establish how these events are internalized.

**Table No. 3. Descriptive statistics for dimension 3 OSI**

	disagreement pronounced	disagreement moderate	disagreement easy	agreement easy	agreement moderate	agreement pronounced
Number of subjects	80	80	80	80	80	80
Mean	.5375	1.8125	1.6500	1.2500	.5625	.2125
Median	.0000	2.0000	1.0000	1.0000	.0000	.0000
Module	.00	.00	1.00	.00	.00	.00
St. deviation	.9270	1.6466	1.5435	1.2679	.9917	.5441

Nonparametric distribution of scores, L-shaped, when the Media = 0.537 and median = 0.

- 66.3% of research subjects are reluctant to express strong disagreement when the items they require to recognize that there are people without ambition, and recognizing the need of self. They do not check in any of the items size, response option "strongly disagree".
- 5% of subjects there is a strong disagreement when asked to confirm the assertion that there are people willing performance, and that they need to excel in everything they do. Distribution of scores is here nonparametric form and letter, Average = 1.8 and median = 2.
- 27.5% of respondents did not express their disagreement (not checked "moderately disagree" to any of the 6 items of size) on claims aimed impatience, sufficiency, lack of ambition and lack of affirmation.
- 32.6% of subjects instead disagree with statements like "Since I'm happy with life, not a very ambitious person to feel the need to succeed in their careers." Subjects, the percentage of 20.1% choose one response that expresses a "slightly agree" with statements of the questionnaire in half and half thousand items than size.

- if 68.8% are reluctant to agree with statements such as "not one person willing performance, which always behave as if they are in competition and a need to excel in everything he does" ;
- 6.3% of subjects but recognize its convenience, lack of ambition and that is not action-oriented.

#### **Dimension**

#### **III,**

#### **Part**

#### **B**

The results on this dimension presented in the following sunrise, respectively, 90% of respondents have never checked to "strongly disagree" when they were asked about how unpredictable and hazard related to the events happening around them.

- 74% of subjects in the group studied never checked or not checked only once to "slightly disagree" when items of the questionnaire stated that "performance appraisals do not reflect how much work and as individuals".
- only 6.3% of respondents expressed disagreement with these statements.
- a percentage of 12.5% of subjects expressed a moderate agreement between the two items of size III Part B, items containing statements like: "Even if some tried to steer the course unit, taking part in social activities or different applications, most of us are subject to influences that can not understand nor control. "
- 11.3% of respondents expressed agreement with statements easily with two items of size III, items that support, among other things, that "order can be unfair in assessing subordinates, because their performance is often influenced by random events"
- 5% of respondents expressed agreement with three statements items easier this part of the third dimension.

#### **Dimension**

#### **IV.**

#### **Source**

#### **of**

#### **tension**

This dimension comprises 40 items that correspond to potential sources of tension, specific organizational environment in which general well researched. Subjects were asked to assess the intensity you feel that each of them carries on his person.

**Table No. 4. Descriptive statistics for dimension 3 OSI**

	definitely not	generally not	rather not	rather yes	generally give	definitely yes
Number of subjects	80	80	80	80	80	80
Mean	1.9250	4.0250	3.9625	9.5625	17.3250	3.1250
Median	.0000	2.0000	4.0000	9.0000	15.5000	2.0000
Module	.00	.00	4.00	8.00	14.00	.00
St. deviation	3.7477	5.2554	3.1681	6.0375	9.4732	3.8595

- 71.3% of subjects used in research have avoided lot to tick option "certainly not a source of tension" when items indicated that the sources of tension: the lack of consultation and communication, subsolicitarea (to work at a lower level skills yourself), poor quality or poor professional or vocational training leading carts.
- only 1.3% of respondents gave this response option more than half the size of items. Percentage of subjects who did not tick "is generally not a source of tension" in any of the items or a check to one or five of the 40 items of the scale is 73.8% of the batch used in research.
- subjects one never elected or chose "rather is a source of tension" in only 1 to 5 items of 40 items, the report size is 26.3 "from subjects participating in research.
- subjects were given the option to respond to more than half of the items size confirms that discrimination and favoritism, lack of positive feedback from superiors or enhance the feeling of isolation felt by the team (lack of cohesion of the group) are rather a source of tension felt acutely by 6.3% from lot.

An analysis of how to distribute the scores on this scale level IV, reveals that the subjects felt that "in general is a source of tension":

- lack of social support from colleagues;
- direction and supervision of a job;

- lack of understanding life partner to work and his career; overtime;
- disagreement between different tasks and requirements;
- obligation to take risks;
- involvement in ambiguous or "delicate";
- no stability or confidence in life;
- consequences of their mistakes;
- possible lack of affirmation;
- making important decisions;
- damage the relationship with their spouse as a result of service requests;
- lack of feed-back on how to achieve tasks;
- unclear prospects of promotion;
- lack of emotional support from family;

**Table No. 5. Descriptive statistics for dimension 5 OSI**

	never	rarely	Not use	use	often	frequently
Number of subjects	80	80	80	80	80	80
Mean	.1250	.5625	1.3544	4.2250	2.9750	.7750
Median	.0000	.0000	1.0000	4.0000	3.0000	.0000
Module	.00	.00	.00	5.00	.00	.00
St. deviation	.4321	1.0043	1.6333	2.6240	2.2500	1.4318

91.3% of subjects were chosen in their responses to "never use" when you were asked if, in trying to cope with stress, resort to hobbies and discussions on ways of organizing working time or ordering the urgency of solving problems and importance. Choices expressed for this option are irrelevant response being expressed by only 8.7% of subjects, and they are just using an item more than 2 of the 10 items of size. The same avoidance of inclusion between the variant options "rarely used" when asked about the coping mechanisms used.

- A percentage of 67.5% of subjects never voted on this variant;
- 17.5% of respondents chose this answer just one of the 10 items of size
- 10% of respondents chose to answer only two of the 10 items.
- 43% of subjects avoided the alternative choice "rather not use"
- 12.7% of respondents opted for it only once;
- 1.3% made a significant selection on this variation using it to answer half of the items size;

#### **Dimension VI. To what extent do you feel master of the situation at work?**

This dimension of the questionnaire includes 16 items, subjects were asked to express opinions about jobs in general and not about their current service. They must evaluate items on a scale with six response options, from strong disagreement to strong agreement, items that show how they feel that they master the situation at their workplace.

- choice "strongly disagree" was never chosen in response to the items size by 78.8% of subjects.
- to "strongly disagree" was preferred by half of the items size of 2.5% of subjects.
- the alternative dispute usoir subjects have opted for it than against very small:
- 63.8% opted for it to only 0-4 items of the 16 items have size, so their choice can be considered irrelevant.
- 22.5% opted for it over half the items size, their choice may be considered relevant. Thus we can say that:
- 63.8% of subjects are inconsistent with statements such as: "a job is what you do in he "," in most jobs, people can do largely what they aim to achieve "," if you know what you get from a job, you can find the job to satisfy your desire "" If employees are dissatisfied with a decision taken by their boss, they must do something to remedy the situation "," those with good performance at work are usually rewarded "a 22.5% of the respondents opted for "slightly disagree" on items that have a content such as "getting the

job you want, is more of chance", "promotions are usually a matter of luck" "the money is primarily a matter of chance" when it comes to get a good job is more important than who you know you know ", the main difference between those who earn well and those who earn low is luck" in most services have to have luck to be considered a good employee "

#### **Dimension VII. We cherish in life?**

Subjects, in a proportion of 38.8% choose the response "very important" by half the size of items, items that support the values related to their job. Of the statements contained in items I could quote: "to have enough time for personal and family life", "to have good working conditions (ventilation, adequate light, suitable workspace, etc..)," To have good working relationships the head ", " to have security service ", " to work with people who cooperate well with each other "- to be consulted directly by the head of the decisions that it must take ", " to have the opportunity to be promoted ", " may contain elements of various and adventure at your service "

How frequently are subordinates afraid to express disagreement with their superiors?

Another item in the size of VII, with custom response variable is one that measures the degree of rigidity and authority leadership style used in the military. Subjects are interviewed about the frequency of feelings of fear when you need to express disagreement with their superiors.

#### **Dimension VII. Disbelief, distorted perception of reality**

This dimension is divided into six items and asked subjects to express agreement or disagreement with the statements contained them.

Subjects to express agreement or disagreement with statements like: "most people can trust", "can be a good manager without having precise answers to most questions that subordinates raised in relation to their work", " an organizational structure that subordinates have two bosses should be avoided at all costs ", " Competition between employees usually do more harm than good ", " rules apply in an organization must not be violated, even when the employee believes it would be the interest of the organization ", " if one fails in life, often his own fault "

All these items try to capture the rigid structures and distorted thinking that reality is perceived. Research has shown that reality is less important than is actually how it is perceived by the individual. A distorted perception of reality may be a result of accumulated stress on the individual as a product of his work.

#### **4. Conclusions**

Under pressure from environmental factors can record substantial changes in attitude and behavior plan, resulting in negative effects in terms of performance at work and social life of prison staff, with time instaurându the symptoms of chronic stress, so that our research results allow to give a number of recommendations:

- an identification of stress factors and individuals vulnerable to stress;
- avoid or eliminate a physical or psychosocial ambient noxious agents;
- choosing a profession based on personal bias and check the possibilities of implementing the best of it;
- an approach based on an algorithm professional duties involving the hierarchy of objectives, deadlines, tasks breakdown in stages, improving communication within relationships work group;
- an award of moral and emotional support employees;

After identifying and ranking stress factors, at the top we find the lack of professional satisfactions (16.25%), followed in descending order of compliance (13.75%) and relationship with superiors (12.5%).

Analyzing hierarchy of stress factors, made by the subjects, it is noted that, at a rate of 11.25%, employees of the organization were designated as the highest source of stress, relationships with prisoners, they exert a great psychological pressure on the supervisors. Not infrequently, given the overcrowding in the prison system, NCOs are insufficient, failing to cope with everyday business applications.

#### **5. References**

- Andreescu, Anghel and Plum, Stephen (1999), *Psychopedagogy military*, Ed Timpolis, Timisoara.
- Anitei, Michael, Baloiescu, Victor, blunt Florin(1987), *The pilots and paratroopers mental demands*, Military Publishing House, Bucharest.
- Arădăvoaice, George (1993), *Psychological stress in armed struggle*, Ed AISM

- Ceausu, Edward (1978), *Psychology and the condition of uncertainty*, Military Publishing House, Bucharest.
- Chung, Charly( 2003), *How we can escape the stress* , Polirom Publishing House, Iasi.
- Ciocan, Ion and Ion Negreț(1981), *Formation of human personality - the educational significance and meanings*, Military Publishing House, Bucharest.
- Defect Cornel et al (r) Deaconu, Victor(1998), *Elements of Sociology and Psychology Romanian Military - collection of texts*, Ed Military, Bucharest.
- Cosmovici, A. (1996), *General Psychology*, Ed Polirom, Iasi.
- Deverenco, P., Anghel, I. Baban, Adriana(1992), *Stress in health and disease*, Dacia Publishing House, Cluj - Napoca.
- Dragoi, Drago(1992), *The initiative in battle*, Military Publishing House, Bucharest.
- Goupil, Gergette Hans Salyut(1991), *Wisdom stress*, Ed Coressi Bucharest.
- Legeron, Patrick( 2003), *How to defend yourself from stress*, Ed Three, Bucharest.
- John B., Iamandescu(2002), *From a psychological perspective Psychological stress and psychosomatic*, Infomedica Publishing House, Bucharest.
- Iamandescu, I.Bradu (1993), *Mental stress and internal diseases*All Publishing House, Bucharest.
- Mitrofan, N., Zdrenghea, V., Barrels, T. (2000), *Psychology legal*, Publishing and media house opportunity, Bucharest.
- Stefanescu, Goangă, Rosca, Alexandru and Cupcea, Savior (1978) *Social Adaptation*, Psychology Institute of the University of Cluj Publishing House, Cluj.
- Sinton, Filaret(1988), *Practical applications of military psychology*, Military Publishing House, Bucharest



# TECHNICAL EFFICIENCY ANALYSIS AT S.C. AVICOLA CREVEDIA

*SANDA (COSTAICHE) Georgiana Melania*

*Junior teaching assistant Ph.D. student, Faculty of Management, Economic Engineering in Agriculture and Rural Development /Department Management and Marketing, University of Agricultural Science and Veterinary Medicine, Bucharest, Romania, e-mail: melania.sanda@yahoo.com*

*OANCEA Margareta*

*Professor Ph.D., Faculty of Management, Economic Engineering in Agriculture and Rural Development /Department Management and Marketing, University of Agricultural Science and Veterinary Medicine, Bucharest, Romania, e-mail: oancea\_margareta@yahoo.ca*

**Abstract:** *Given the importance of poultry products and the need to increase production, which can only be based on resources that are limited, it is necessary to provide maximum efficiency at minimum costs. Its purpose is to conduct an analysis of technical efficiency indicators at Avicola Crevedia, compared to national results and determine the degree of efficiency. Since it is the oldest poultry company in Romania is still on top in terms of technical performance indicators, managing to overcome problems caused by avian influenza and the global economic crisis.*

**Key words:** technical efficiency, European Economic Index, Avicola Crevedia

**JEL classification:** A12, O1, R11

## 1. Introduction

Given the development of society, leading to increased needs, increased production is necessary based on technical and scientific achievements, so the problem of efficiency, since higher production can be based on resources. And most of the resources are limited, while the needs are endless. This should ensure maximum efficiency at minimum costs.

Efficiency is synonymous with the absence of waste or use as good as it can, economic resources to meet human needs and desires. (Scholty B., 2007)

Efficiency is the ratio between results and resources consumed and therefore, the effort made to a unit should be up on the effort to obtain a unit of effect must be minimal. The conclusion is that the idea that maximize impact is done simultaneously with minimizing effort is wrong.

Usually increased efforts happen with growth effects. (Roşu I, 2007) But maximize the effects should be made with the preservation of ecological balance.

Development of poultry farming was necessary due to increasing world population and urbanization, so due to growing needs for animal protein. But because it is a source of organic fertilizer to increase crop production. And it was due to the appearance of the intensive industrial system in the United States, in early 1940. System that has spread to Western Europe, so that in the 60's, it have removed U.S. supremacy. (Ketelaars, 1982)

In Romania there were increasing concerns to turn poultry from traditional to economic sector of agricultural production. Thus in 1860 the world-renowned scholar Ion Ionescu de la Brad establishes first poultry breeding model farm. And Professor C. Baicoianu makes the first experimental poultry resort "Baneasa Bucharest" in 1940. (Bălăşescu, 1980)

In 1961 the first industrial poultry company in Romania is established, Crevedia poultry factory. With a capacity of 1000 tons of meat and 10 million eggs per year, becoming the first poultry complex of the former socialist countries. (Avicultorul, no.1/2011) Since 1990, Avicola Crevedia through the privatization process in 2006 became part of the group Agrolis Group, applying integrated management.

Vertical integration is the most common form of organization of poultry production, since it deals with the production of biological material to finished product marketing. Efficiency and integration advantages are provided by the good organization of production, easy transfer of technological innovations, performance management through rigorous cost control. (Chebuţiu M., Chiş M., 2008)

Genetic performance, nutrition and technology made it possible to reduce production cycle from 84 days for chicken from 1.2 to 1.4 kg in 1976 to a cycle of 52 days for a chicken with an average weight

of 2, 2 to 2.3 kg. Also specific feed consumption decreased from 2.7 to 3 kg / kg live weight before 1989 to 1.6 to 1.7 kg / kg of body weight at the moment, and meat production per square meter increased at 15-16 kg 42-48 kg. (Lumea Satului, 2009)

Romanian poultry faced over time with various problems. Thus we can remember energy and financial poverty during the communist period, state of uncertainty and instability due to restructuring and privatization of poultry companies in the early 1990s, bird flu worldwide since 2006 and the crisis of 2008.

Because of the degradation during the 1990s, and 1993 it established the Poultry Breeders Union in Romania whose aim was to save the poultry farming, given that many manufacturers could not adjust to new conditions of production and market sales. In 1994 prepared a short-term strategy 1994-1998 "restructuring and privatization strategy for industrial birds growth in Romania", and in 2003 a medium and long term strategy "The development strategy of the national poultry farming - Horizon 2025". They had to increase average daily gain to 35 grams in 1998, 50 grams in 2013 and 54.3 grams in 2025, lower specific consumption of feed and rate of mortality, which had to reach 10% in 1998, 5% in 2013 and 4.7% in 2025. (Avicultorul, no.4/2008)

The start of economic crisis in the United States of America in 2008 and expansion in Europe, led to negative effects in Romania. Increasing cereal prices due to biofuel production, encouraged by the European Union in view of environmental concerns, (The state of food agriculture commodity markets, 2009) led to higher feed prices for poultry diets the result is an increase price for poultry fall under revenues, so the purchasing power.

Its purpose is to conduct an analysis of technical efficiency indicators Avicola Crevedia the unit compared to national results and determine the degree of efficiency.

## 2. Material and methods

Given the specific activity approach to meat poultry breeding is necessary to use a system of indicators with which to calculate and interpret various aspects.

This system of indicators used to determine the technical efficiency of the company Avicola Crevedia are: average daily gain, mortality rate, feed conversion ratio, slaughter age and European economic index.

$$\text{Slaughter age} = \frac{\text{average weight at delivery} - \text{average weight of day old chicks}}{\text{average daily gain}} \quad (1)$$

$$\text{European Economic Index} = \frac{\text{viability} * \text{weight(kg)}}{\text{age of slaughter} * \text{specific feed consumption}} * 100 \quad (2)$$

Research method used is time compare based on indices with fixed base and comparison in space. Comparison over time based on indices with fixed base includes examining the phenomenon at different times from the reference. And comparing the results of the comparison space unit provides the results of other units.

## 3. Results and Discussion

Although Romanian poultry has had problems, both during and after communism, managed the improvement of technical efficiency. Thus these indicators are currently comparable with the one of the European country with developed poultry. If the technical efficiency Romania can boast performances, the same can be said about economic efficiency. However Romania managed to pass the global economic crisis with remarkable technical performance.

### 3.1. The national evolution of technical performance during 1950-2010

We can observe the evolution of technical performance in Romania during 1950-2010, in Table 1. Such slaughter age reduced from 90 days to 36-40 days in the years 1950-1960 2005-2010. The most significant decrease occurred in 1960-1970 to 15 days. Lowering the age of slaughter increased the number of sets / year, so to produce more meat.

Average weight at slaughter increased from 1 kg to 1.8 to 2.2 kg during the years 1950-1960. Achieving good results in the last decade because of improved genetic selection, which has made

available 2.5 kg broiler's after only 39-42 days with a feed conversion ratio of 1.6 kg / kg body weight. (The State of Food and Agriculture, 2009)

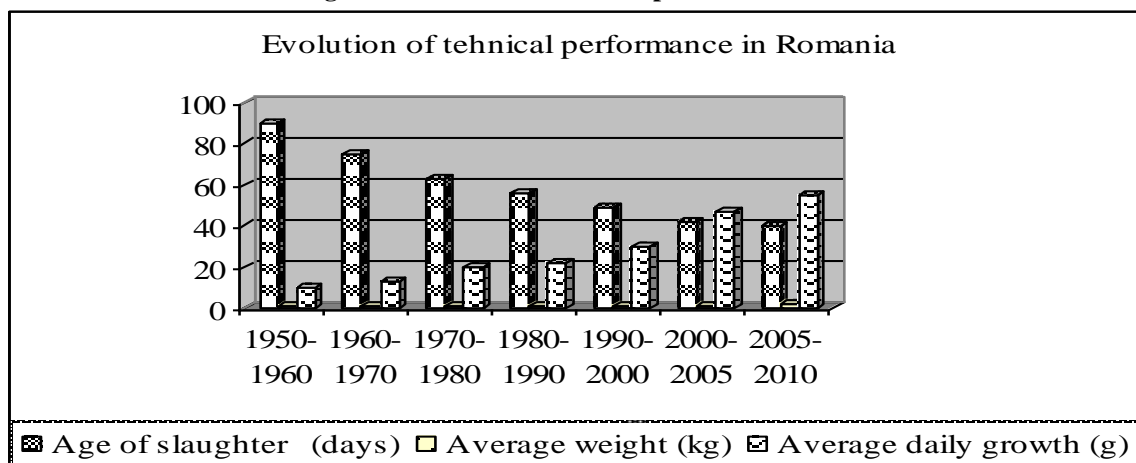
**Table 1. Evolution of tehcnical performance in Romania**

Years	Age of slaughter	Average weight	Average daily growth
	days	kg	g
1950-1960	90	1	10,5
1960-1970	75	1	12,8
1970-1980	63	1,3	20
1980-1990	56	1,3	22,5
1990-2000	49	1,5	29,8
2000-2005	42	1,6-2	37-47
2005-2010	36-40	1,8-2,2	50-55

Source: Avicultorul no2/2009, pag 17

In terms of average daily growth shows a continuous increase from 10.5 grams to 50-55 grams in the years 1950-1960 during 2005-2010, also large increases in the last decade.

**Figure 1. Evolution of tehcnical performance in Romania**



Source: : Avicultorul no 2/2009, pag 17

These achievements were possible since grown hybrids are becoming more proficient. We have taken steps to combat diseases such as infectious bursitis, coccidiosis, colibacillosis and other diseases increase and diseases of nutrition. But they introduced modern equipment feeding, watering, air, increasing the degree of mechanization, automation and computerization.

### 3.2. Technical performance at Avicola Crevedia compared with those obtained nationally.

Average daily growth is an indicator of efficiency and gain and is achieved on average a day feeding. The efficiency of this indicator is even greater as its value is higher.

**Table No. 2. Evolution of average daily gain (grams)**

Average daily growth	2007	2008	2009	2010	2010/2007 (%)
Avicola Crevedia	55.35	55.3	59.4	58.75	106.14
National Level	51.43	52.22	52.53	54.19	105.36

Source: Avicultorul no1/2011, pag 51-53; Internal regulation Avicola Crevedia

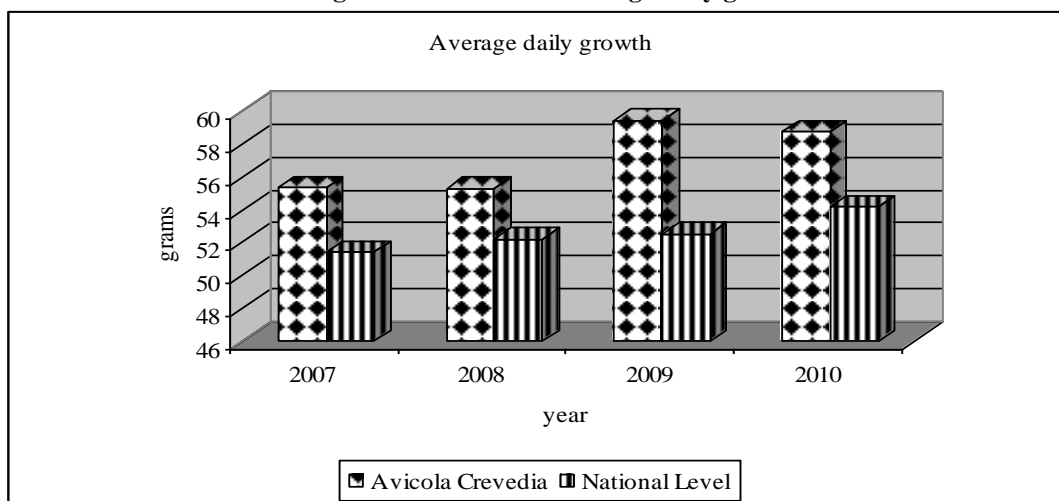
Notice that both nationally and in the unit that we analyze average daily increased. Growth is higher in the 6.14% Crevedia Avicola unit in 2010 compared with 2007, while national growth in 2010 compared to 2007 is 5.36%.

The company Avicola Crevedia's daily average grows steadily until 2009, in 2010 with a slight decrease. Loss that is due to management decisions aimed at reducing costs has been given the economic crisis that caused in Romania decreased wages and increased VAT from 19 to 24%.

Also you can see that the national average daily is lower than that of Avicola Crevedia because companies that have this indicator lower.

Increase average daily gain can be achieved by using hybrid performance, but also by improving the growth and nourishment.

**Figure 2. Evolution of average daily gain**



Source: Avicultorul no1/2011, pag 51-53: Internal regulation Avicola Crevedia

Mortality losses indicate the health of the flock and need to be reduced as the economic implications in the proper conduct of this business.

**Table No. 3. Evolution of mortality losses (%)**

% mortality	2007	2008	2009	2010	2010/2007 (%)
Avicola Crevedia	4.24	5.80	5.56	4.09	96.4
National Level	5.7	4.15	4.39	4.24	74.4

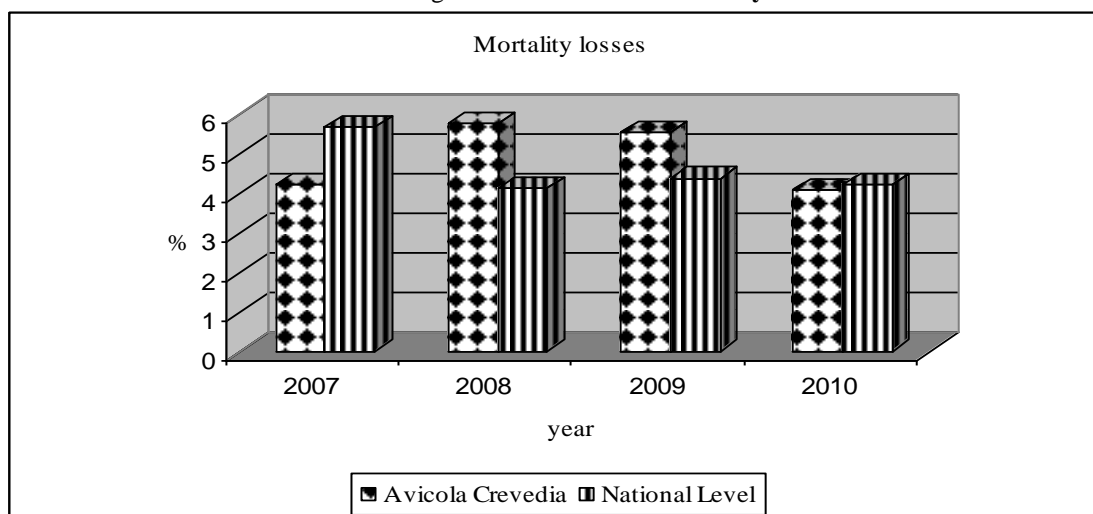
Source: Avicultorul no1/2011, pag 51-53: Internal regulation Avicola Crevedia

National mortality losses decreased by 25.6% in 2010 compared to 2007, in 2008 was recorded the lowest percentage of mortality, 4.15% respectively.

The company Avicola Crevedia mortality losses decreased in 2010 compared to 2007 by 3.6%. It can be seen a continuous variation of this indicator. Thus in 2008 was recorded the highest mortality rate of 5.8%, while nationally was 4.15%. In 2010 the percentage of mortality in the company Avicola Crevedia is below the national level.

The high mortality may occur due to poor health status and to avoid losses by mortality measures necessary to meet growth and feeding, but also biosecurity.

**Figure 3. Evolution of mortality losses**



Source: Avicultorul no1/2011, pag 51-53: Internal regulation Avicola Crevedia

The specific consumption of feed or feed conversion ratio is the amount of feed consumed to obtain a kilogram weight gain. If the value is lower much better is the performance.

**Table no. 4. Evolution of specific feed consumption (kg feed/kg gain)**

Specific feed consumption	2007	2008	2009	2010	2010/2007 (%)
Avicola Crevedia	1.72	1.601	1.61	1.60	93.02

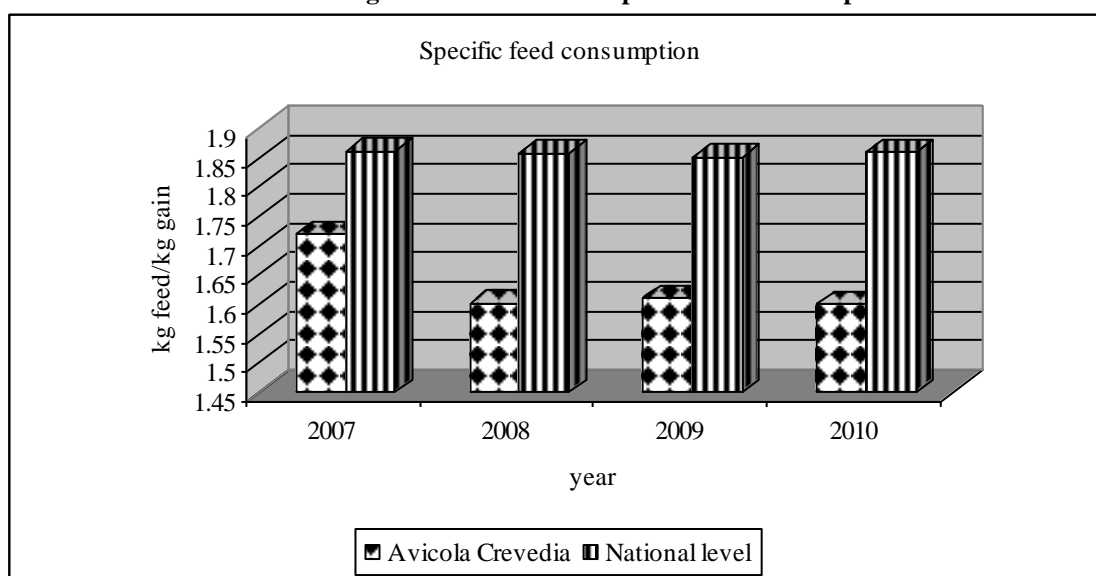
<b>National level</b>	1.861	1.857	1.851	1.859	99.9
-----------------------	-------	-------	-------	-------	------

Source: Avicultorul no1/2011, pag 51-53: Internal regulation Avicola Crevedia

Analyzing the evolution of the specific consumption of national feed, there is a slight decrease of 0.1% in 2010 compared to 2007. At the observed unit the specific feed consumption the decrease in 2010 compared to 2007 is 7%. Also notice that during the analyzed period the decrease is continuous. Decrease is due to new equipment that reduces waste feeding.

To improve this indicator nationally is necessary the decrease of the specific consumption of feed in all units. And this can be achieved by using modern equipment to reduce waste, the use in production of hybrids with high performance, and choice of feeding programs that provide the best conversion.

**Figure 4. . Evolution of specific feed consumption**



Source: Avicultorul no1/2011, pag 51-53: Internal regulation Avicola Crevedia

As the slaughter age of broiler chickens, it appears the world tends to decrease it.

**Table No. 5. Evolution of slaughter age (days)**

Age of slaughter	2007	2008	2009	2010	2010/2007 (%)
<b>Avicola Crevedia</b>	37.2	37.3	37.9	35.1	94.3
<b>National level</b>	41.0	41.3	41.0	40.7	99.3

Source: Avicultorul no1/2011, pag 51-53: own calculation based on internal regulation Avicola Crevedia

As the slaughter age of broiler chickens, it appears the world tends to decrease it. We can observe in the table 5 that the national slaughter age decreased by 0.7% in 2010 compared with 2007. at the observed unit the slaughter age decrease in 2010 compared with 2007 with 5.7%.

The choice of slaughter age is based on a number of factors such: feed prices, the price of the day-old chicks, or destination after slaughter.

So if the feed price increased, knowing that 50-60% (Avicultorul no 4/2009) of offspring are represented by the feed, it is recommended lowering the age of slaughter. If the price of the day old chicks grow, knowing that 11-13%(Avicultorul no 4/2009) of the cost is represented by the day-old chicks it is recommended to increase the age of slaughter.

In terms of destination after slaughter, the recommended low age of slaughter for carcass meat sold and increasing age of slaughter if desired cutting and obtaining varieties with high added value.

Given the above, we can say that the company Avicola Crevedia sells its products mainly in the form of carcass meat.

Advantages lower slaughter ages of the offspring are:

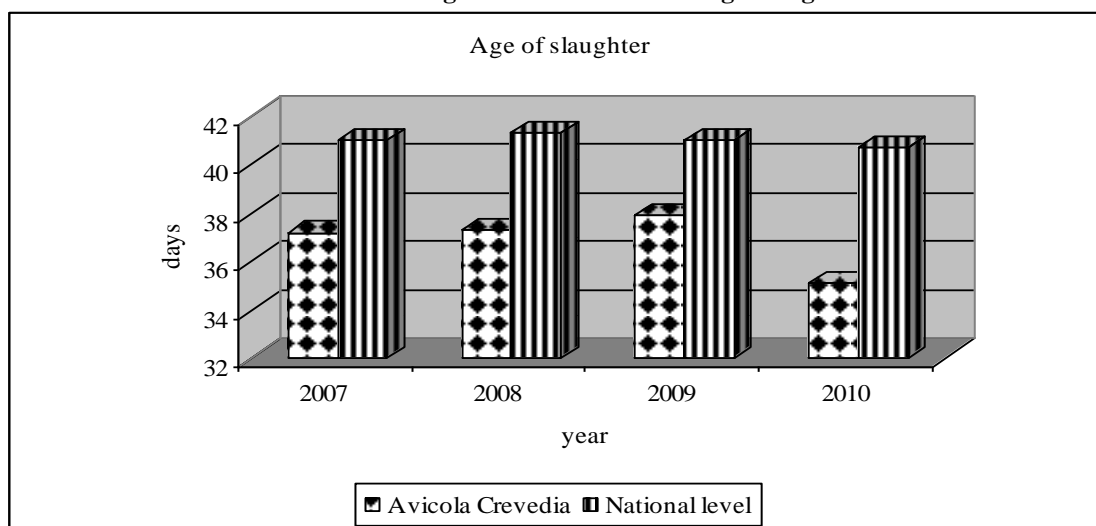
- ❖ Reducing of the specific consumption of feed and production costs
- ❖ Increase the number of sets per year, thus increasing the amount of poultry meat surface, because shortening the production cycle.

But low slaughter age presents disadvantages, and most important are:

- ❖ Increase the number of day old chicks
- ❖ Increased costs due to increasing health gaps, the greater need of bedding and fuel for heating halls.

- ❖ Greater quantity of water in the housing, lead to lower nutritional value.

**Figure 5. Evolution of slaughter age**



Source: Avicultorul no1/2011, pag 51-53: own calculation based on internal regulation Avicola Crevedia

European Economic Index, European efficiency factor or the broiler efficiency index measures the technical performance. In Romania was introduced in 1970 under the name of the production index. The higher is the value the technical performance is better.

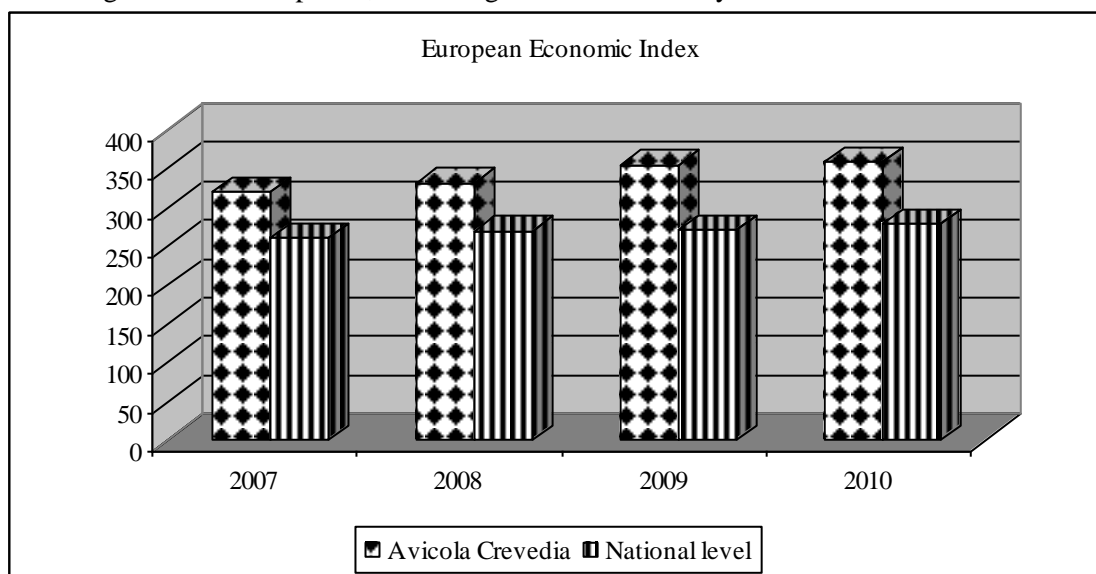
**Table No. 6. Evolution of the European Economic Index**

European Economic Index	2007	2008	2009	2010	2010/2007 (%)
Avicola Crevedia	320.2	331.7	354.89	358.97	112.10
National level	260.66	269.37	271.35	279.15	107.1

Source: Avicultorul no1/2011, pag 51-53: own calculation based on internal regulation Avicola Crevedia

Analyzing European economic index shows that at national level in 2010 compared to 2007 was an increase of 7.1% and the company Avicola Crevedia increase was 12.1%.

Can be noticed that Avicola Crevedia had a European Economic index exceeding the national level, exceeding over with 300 points, indicating an efficient society.



Source: Avicultorul no1/2011, pag 51-53: own calculation based on internal regulation Avicola Crevedia

#### 4. Conclusions

Romanian poultry sector over time was not exempt from problems, but managed to recover, reaching technical performance, similar to European ones.

If the medium and long term strategy Union of Poultry Breeders in Romania aims at increasing the technical efficiency indicators and increasing average daily gain to 54.3 grams in 2025, it was almost realized in 2010 when it reached 54.2 grams.

As the percentage of mortality, even exceeded the strategy, since they wanted to achieve a 4.7% in 2025 and in 2010 achieved a rate of 4.24%. Good results at national level are recorded for of the specific consumption of feed and slaughter age of the European Economic index.

After analyzing the technical efficiency indicators Avicola Crevedia society, the oldest poultry company in Romania, shows the following:

- ❖ Average daily growth rate slightly decreased in 2010 compared to 2009 due to management decision to reduce spending, but is higher than the national average.
- ❖ As the percentage of mortality rate, has high throughput. Being recorded variations from year to year in the period analyzed, but in 2010, manages the reduction of this indicator, falling below the national level of 4.24%.
- ❖ The specific consumption of feed to the unit, recorded a decrease of 7% in the period, is below the national level by about 0.2 kg in 2010. Which indicates the use hybrids with high performance, equipment that avoids waste and feeding programs that ensure a good conversion.
- ❖ Age of slaughter unit is very low level of 35.1 days in 2010, and nationally is 40.7 days. Lowering the age of slaughter in the period analyzed was due to higher feed prices, but that is marketing products mainly in the form of housing in stores.
- ❖ European society economy index is high, exceeding the national average. Throughout the period analyzed the European Economic index has a value greater than 300 points indicating an efficient society.

So we can say that society is a society Avicola Crevedia performance in terms of technical performance indicators. Performance that could be achieved given the vertical integration that enables application performance management. Thus Avicola Crevedia oldest poultry in Romania, occupies a central position nationally. Problems seem to have in terms of mortality rate, but in 2010 managed to decrease.

## 5. Acknowledgement

This article was developed under the project “Doctoral scholarships to increase the quality of training young researchers in the field of agronomy and veterinary medicine ( contract POSDRU/88/1.5/S/52614) project cofinanced from European Social Fund by Human Resources Development Operational Programme 2007-2013 and coordinated by the University of Agronomic Science and Veterinary Medicine Bucharest.

## 6. References

- ❖ Banu, L. (2009) Un profesionist de...Crevedia, Revista Lumea Satului, nr.12 (89), pag 36-37
- ❖ Bălăşescu, M. Băltan, Gh. (1980) Avicultura, Editura Didactică şi Pedagogică Bucureşti
- ❖ Chebuţiu, M. Chiş, M. (2008) Corelaţia indicatorilor tehnologici-rentabilitate în avicultură, nr1-2, pag 80-86. Available at <http://journals.usamv.ro/agricultura/article/viewfile/2794/2664>
- ❖ Cofas, V. Marin, Ghe. (2011) 50 de ani de avicultură industrială în România, Revista Avicultorul XVIII (1), pag 30-31
- ❖ Covaşa, A.M. Cofas, V. (2011) Performanţe şi recorduri avicole 2010, Revista Avicultorul, XVIII (1) pag 51-53
- ❖ Damian, A. Marin, Ghe. (2009) Unele aspecte privind creşterea puilor de carne la încheierea trimestrului I 2009, Revista Avicultorul, XV(2), pag 17
- ❖ Damian, A. Marin, Ghe. (2009) Unele aspecte privind strategia de criză, Revista Avicultorul, XV(4), pag 9-10
- ❖ Ketelaars, E.H. Flock, D.K. Horn, P. (1982) Poultry, Livestock production science 9, pag 197-215. Available at [www.sciencedirect.com/science/article/pii/0301622682900719](http://www.sciencedirect.com/science/article/pii/0301622682900719)
- ❖ Roşu, I. (2007) Cercetări privind eficienţa economică a aocierii fermelor de reproducţie rase grele cu micii producători (studio de caz – Jud Olt), teză de doctorat, USAMV Bucureşti.
- ❖ Scholty, B. (2007) Investiţii, eficienţa economică a investiţiilor, Editura Risoprint, Cluj Napoca
- ❖ Van, I. (2008) 15 ani Uniunea Crescătorilor de păsări, Scurt istoric al performanţelor puilor de carne în România, Revista Avicultorul XIV (4), pag 2-3

- ❖ \*\*\*The state of food and agriculture (2009) Livestock in the balance. Available at [www.fao.org/docrep/012/0680e/0680e.pdf](http://www.fao.org/docrep/012/0680e/0680e.pdf)
- ❖ \*\*\*The state of food and agriculture commodity markets (2009) High prices and the food crisis experiences and lessons learned, Available at [ftp.fao.org/docrep/fao/012/i0753e/0753e.pdf](http://ftp.fao.org/docrep/fao/012/i0753e/0753e.pdf)



# PERSPECTIVES ON THE INFLUENCE OF EDUCATION AND CULTURE ON ENTREPRENEURIAL BEHAVIOR. CURRENT SYNOPSIS OF THE LITERATURE

**ȘERBAN-OPRESCU Anca-Teodora**

*Assistant Professor, Ph.D., Faculty of International Relations and Economics, Department of Modern Languages and Business Communication, "Academy of Economic Studies", Bucharest, Romania, [teodora.oprescu@rei.ase.ro](mailto:teodora.oprescu@rei.ase.ro).*

**ȘERBAN-OPRESCU George Laurentiu**

*Assistant Professor, Ph.D., Faculty of Economics, Department of Economic Doctrines, "Academy of Economic Studies", Bucharest, Romania, [george.serban@economie.ase.ro](mailto:george.serban@economie.ase.ro)*

**Abstract:** *The main goal of this paper is to trace theoretic directions in cultural and educational studies that bear on the impact of these two dimensions on entrepreneurial behavior, in order to increase the level of competitiveness of the Romanian business environment. Using as starting ground theoretical state of the art in cultural and educational studies, the paper proposes to cover the initial stage of a qualitative and quantitative model which assesses the influence of education and culture on (Romanian) entrepreneurial behavior.*

**Key Words:** culture, education, impact, entrepreneurial behavior, competitiveness.

**JEL classification:** A12, A13, M12

## 1. Introduction

Re-acknowledging the demise of the of the communist type socialism and the necessary re-positioning of the Central and Eastern European countries in their transition to the forms of the free market have been the pivotal and challenging movements of the past two decades. Dramatic social transformations, set in motion by the reinstitution of the free market have triggered the need for the ex-communist countries to re-align to the dominant narrative of capitalism management, righteous democracy, security, wealth achieved through adapting to the rules of a harsh business environment. To be successful and to manage oneself in business have become the natural articulations of the new societal forms that would ensure individual's wellbeing and comfort and the process of achieving accomplishment in the economic and business environment has been all the more rendered difficult by the lack of a genuine business-oriented culture rooted in education and cultural society values that would foster and encourage entrepreneurial skills and spirit. Symptomatic for the countries that broke away from Soviet Communism, Romania had to embark almost unequipped on the journey of re-territorializing its social, economic and cultural space with the forms and strategies of survival of the Western modernity. Under these circumstances, the present paper has as core point the topic of the impact of cultural and educational accumulations on entrepreneurial behavior. Its main goal is to initiate a framework based on which to trace strategic directions in educational and cultural policies in order to increase the level of competitiveness of the Romanian business environment using the sound input of a qualitative and afterwards quantitative model which assesses the influence of education and culture on the relevant aspects of Romanian entrepreneurial behavior. Its main goal is to set a framework for decision-making at the level of cultural and educational instances/institutions which takes into account the inter-conditioning between willingness to start and maintain a business, risk assessment in the decision-making process and ethic behavior that was not previously addressed in the emerging business environment literature. A synopsis of the main limitations and difficulties in approaching these segments of research follows.

## 2.

Any endeavor to observe and analyze society and societal ethos which underlies any possibility and opportunity of self-development and community development has to start with the cultural fabric that influences and constructs individual and national characteristics. Acknowledging the end of the Soviet Union and the disintegration of the Communist bloc, the end of Cold War and the unification of Europe, we depart from the assumption that the space geographically inscribed as Eastern Europe has suddenly become what Homi Bhabha called "Third Space", a space where it is "in the emergence of the interstices – the overlap and displacement of domains of difference – that the intersubjective and collective

experiences of nationness, community interest, or cultural value are negotiated” (Bhabha, 1994, p. 1-2). In our case, including and going beyond Bhabha’s remarks, it is a space striving to brake with the past and embrace the alluring features of the “free world”, an in-between space, a space where during the process of transition, hybrid forms play on polyphonic instruments, thus inventing new relational logics and giving shape to new types of “imagined communities” (Benedict Anderson, 2006) and “imagined geographies” (Edward Said, 1978) referring to the perception of space created through certain images, texts, discourses, ideologies and as forms of social constructionism. History and human choice have demonstrated that the communist system would not survive the 21st century. Central planning limited what society could achieve (Hayek, 1994), it was unable to adapt to the new realities of the post-industrial world. Low standards of living, scarce access to consumer goods and the lack of freedom in expression and thought, have led to the dissolution of this type of state organization. Amid “mindless uniformity” (Kenney, 2006: 21) and standardized mode of living, democracy and capitalism promised a better world. The transition was, however, not easy in spite of the luminous future ahead. It came with the high cost of nostalgic return to the past and hybridization (Homi Bhabha, Stuart Hall, Paul Gilroy), indeterminacy, multiplicity, ambivalence and the violence of what Leslie Sklair calls the “culture ideology of consumerism”(Sklair, 1991: 82). From the essentially necessary cultural point of view, the theoretical apparatus does not rely only on the above mentioned concepts; it will be extended, to theories to be found in, or based on, Gilles Deleuze and Pierre Felix Guattari concept(s) of de-territorialization and re-territorialization in their anthropological occurrence and sense of removal of objects and subjects and re-insertion, along with Buck-Morss (2002) discourses on transition, Adam Smith’s and Amartya Sen’s views on human progress and nation wealth, Thomas Friedman’s and Joseph Stiglitz’s ideas on globalization and on the cultural logic of globalization (Kraidy, 2005). However, the numerous studies that focus on the cultural re-inscriptions undergone by a society in transition from one social configuration to another, dwell on the descriptive character of the process rather than on the ways in which these transitory culturally embedded movements reflect and impact the perception and perspective on the newly assembled business environment. This important issue has not been consistently analyzed so far, especially from a quantitative perspective when referring to the manner in which various cultural acquisitions intrinsically determine the individuals’ propensity towards an entrepreneurial behavior triggered by the perception on and of the business environment. Moreover, further research should focus on the perception of the Romanians of the business environment by comparison to the perceptions of the Europeans and Americans.

A brief literature review on the topic of determinants of entrepreneurial behavior (Autio et al., 1997; Bird, 1988, 1992; Boyd and Vozikis, 1994; Davidsson, 1995; Erikson, 2001; Krueger, 1993; Krueger and Brazeal, 1994; Krueger and Carsrud, 1993; Kolvereid, 1996a, b; Mitchell *et al.*, 2000; Reitan, 1996; Shapero and Sokol, 1982; Scherer *et al.*, 1989, 1991) reveals that education is an important tool that provides students with opportunities to explore and fulfill their potential and to achieve the required entrepreneurship competences. Nevertheless, some early researchers suggested that there is a weak connection between education and entrepreneurship arguing that entrepreneurs are less well educated than the general population (Jacobowitz and Vilder, 1982). More recent studies suggest that people who have a higher level of education are more willing to start a business than people with a lower level of education (Bates, 1995; Bowen and Hisrich, 1986). In support of this evidence, the study of Robinson and Sexton (1994) shows that business owners are considerably more educated than the general public. Moreover, Pajarinen et al. (2006) argue that entrepreneurs with a higher academic background are more often innovative, use modern business models and more willing to use the new technology. In this context, one can argue that education is critical to the development of attitudes, skills and a positive perception on the entrepreneurship and, therefore, the assertion that education leads to increased entrepreneurial intentions seems more than intuitive. However, despite the obvious link between education and entrepreneurship, the impact of education on willingness to found and sustain business has remained relatively untested as argued also by Donckels, 1991; Krueger and Brazeal, 1994. A review of over ten years of entrepreneurship education literature (Dainow 1986) concluded that, although the benefits of education have been much extolled, researchers need to systematically collect and analyze data and adopt more varied methodologies. The same conclusion was reached by Gorman et al. (1997) which, in their review of literature pertaining to entrepreneurship, enterprise and small business education indicate that more rigorous studies are still required and that there are very few studies which measure the influence of education on the entrepreneurial behavior. At the present time, it is evident that the link between education and entrepreneurial perceptions, requires further research (Donckels, 1991; Kantor, 1988; Krueger and Brazeal, 1994; McMullan, Chrisman, and Vesper, 2002). A widespread opinion argues that

descriptive or retrospective techniques are not likely to provide convincing evidence that entrepreneurship can be influenced by educational programs (Alberti, 1999, Gorman et al., 1997; Matthews and Moser, 1996) and there is opportunity to move the field beyond its exploratory stage (Alberti, 1999).

As one of the most studied topics in economics and business, almost all writers on the subject, despite criticism and controversy, have assumed that entrepreneurs have distinct traits (Bonnett and Furnham, 1991; Brandstaetter, 1997; Cooper and Gimeno Gascón, 1992; Fraboni and Saltstone, 1990; Frese et al., 2000; Holler et al., 1992; Kets de Vries, 1976, Nicholson, 1988; Pines *et al.*, 2002; Solomon and Winslow, 1988; Winslow and Solomon, 1989). Among the traits mentioned most often by these writers were: high achievement motivation, need for control, internal locus of control, autonomy, independence, assertiveness, self-confidence, initiative, optimism, imagination, persistence, single mindedness, decisiveness, competitiveness and risk taking (Cromie, 2000; Deakins, 1999; Koh, 1996). According to numerous researchers (Carland, Hoy, Boulton and Carland, 1984, Kilby, 1971, Mill, 1848, Schumpeter, 1934) one of the key aspects of entrepreneurship is risk-bearing; risk-taking propensity is considered to be a factor in an entrepreneur's behavior. Nevertheless, entrepreneurs' propensity for risk-taking has been the subject of controversy. Brockhaus (1980) argues against the traditional point of view with an empirical study which shows that there is no relevant difference between the risk taking characteristics of entrepreneurs, managers and the general public. On the other hand, a more recent study (Carland et al., 1995) concluded that entrepreneurs, whose goals are profit and growth, are more likely to display a greater propensity for risk taking than either small business owners, whose primary goals are family needs oriented, or managers. In support of these findings, Wayne and Roth (2001) concluded, based on a psychometric meta-analysis of the literature that the risk taking propensity of entrepreneurs is greater than that of managers, particularly among the growth oriented. This brief literature review, demonstrates that existing studies have not reached a commonly accepted consensual conclusion on whether entrepreneurs display a higher risk propensity. Moreover, studies that bring together and connect educational and cultural accumulative input with the entrepreneurs' propensity for risk-taking are very scarce. As such, we believe that research for this paper so far, opens up the study to the less explored area of identifying the manner in which perception on the business environment, as shaped by cultural and educational accumulations, imprints on the entrepreneurial behavior described by and subscribed to the risk-bearing and risk-taking propensity.

Although the emergence of academic research connecting entrepreneurship and ethics is fairly recent, increased interest in the topic has produced a good deal of initial scholarship. According to Harris, Sapienza and Bowie (2009) the existing research connecting ethics and entrepreneurship tends to fall into one of the three primary areas of inquiry: entrepreneurial ethics, social venturing, and entrepreneurship and society. In respect with the purposes of this research proposal, our main concern refers to the ethical perception and action of entrepreneurs, as recent studies suggest that ethics and entrepreneurship are closely aligned (Buchholz and Rosenthal, 2005) and that entrepreneurial success requires moral imagination, in addition to an effective handling of the strategic dimensions of starting a new venture (Dunham et al., 2008). Other studies indicate that there is a greater emphasis on ethical behavior among entrepreneurs (Bucar and Hisrich, 2001) while they exhibit higher levels of moral reasoning (Teal and Carroll, 1999). Nevertheless, other research argues that entrepreneurs are more tempted to direct action that may prevent them from entering ethical ground (Bhide, 1996). Longenecker et al. (1988) and Longenecker et al., (1989a) suggest that entrepreneurs are basically focused on financial outcome, even if this fails to respect norms of fairness. The entrepreneurs' propensity to rule-breaking is analyzed by Brenkert (2009), who explores the ethical tension represented by entrepreneurial rule-breaking. As the link between entrepreneurship and ethics is no longer argued, the research direction has shifted towards at least two topics: 1) how entrepreneurs make ethical decision and 2) what are the ethical dilemmas faced by entrepreneurs that arise from a variety of factors emerged from the business environment. In respect with the first research direction, using mixed methods of study, Bryant (2009) investigates the influence of cognitive factors on entrepreneurs' moral awareness, finding a complex relationship between social cognitive dynamics and sensitivity to moral issues. The second research direction is followed by Chau and Siu (2000) who argue that business environment pressures can have a deep effect upon ethical decision-making processes and a profound impact on the ethical standards of entrepreneurs (De Clercq and Dakhli, 2009). Furthermore, as Payne and Joyner (2006) argue, entrepreneurs are facing ethical dilemmas involving their own values, organizational culture, employee well-being, customer satisfaction, and external accountability.

### 3. Conclusions

The theoretical framings and empirical results revealed by these studies are pointing the way to further research aimed at delivering deeper understanding of the ethical cognition of entrepreneurs. In addition, although research connecting entrepreneurship and ethics is growing, substantial research work is required in order to keep pace with the real-world business environment. As outlined before, there is a number of limitations in the approaches to entrepreneurial behavior and its economy-wide implications that the paper addresses, particularly relating to: a merely exploratory stage in the research of the connection between education, culture and entrepreneurship; a mostly descriptive manner of studying entrepreneurial behavior in transition economies. Departing from existing theoretical knowledge, further research hopes to reveal, with special apprehension, the correct level of sustainable policy trajectories in emerging economies, with a case-study on the Romanian one.

#### 4. References

- Alberti, F. (1999). Entrepreneurship education: Scope and theory, in C. Salvate, P. Davidsson, & A. Persson (eds.), *Entrepreneurial Knowledge and Learning: Conceptual Advances and Directions for Future Research* (Research Report No. 1999–6). Jönköping: Jönköping International Business School.
- Anderson, B. (2006) *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. London: Verso.
- Autio, E., Keeley, R.H., Klofsten, M., & Ulfstedt, T. (1997). *Entrepreneurial intent among students: Testing and intent model in Asia, Scandinavia, and USA*. Paper presented at the Frontiers of Entrepreneurship Research, Wellesley MA, Babson College.
- Bates, T. (1995). Self-employment entry across industry groups, *Journal of Business Venturing*, 10, p. 143–156.
- Bhabha, Homi K. (1994) *The Location of Culture*. Routledge: 1 edition.
- Bhabha, Homi K. (1990) *Nation and Narration*. Routledge: 1 edition.
- Bhidé A. (1996). The questions every entrepreneur must answer, *Harvard Business Review*, 74, p. 120–130.
- Bird, B. (1988). Implementing entrepreneurial ideas: The case for intention, *Academy of Management Review*, 13(3), p. 442–453.
- Bonnett, C., Furnham, A. (1991). Who wants to be an entrepreneur? A study of adolescents interested in a Young Enterprise scheme, *Journal of Economic Psychology*, 12, p. 465–78.
- Bowen, D.D. & Hisrich, R.D. (1986). The female entrepreneur: A career development perspective, *Academy of Management Review*, 11, p. 393–407.
- Boyd, N.G. & Vozikis, G.S. (1994). The influence of self-efficacy on the development of entrepreneurial intentions and actions, *Entrepreneurship Theory and Practice*, 18(4), p. 63–77.
- Brandstaetter, H. (1997). Becoming an entrepreneur: a question of personality structure?, *Journal of Economic Psychology*, 18, p. 157–77.
- Brenkert G. (2009). Innovation, Rule Breaking and the Ethics of Entrepreneurship, *Journal of Business Venturing*, 24, p. 448–464.
- Brockhaus, R.H. (1980). Risk-taking propensity of entrepreneurs, *Academy of Management Journal*, 23(3), p. 509–520.
- Brockhaus, R.H. (1980). Risk taking propensity of entrepreneurs, *Academy of Management Journal*, 23(3), p. 509–509.
- Bryant P. (2009). Self-Regulation and Moral Awareness among Entrepreneurs, *Journal of Business Venturing*, 24, p. 505–518.
- Bucar B., Hisrich R.D. (2001). Ethics of business managers vs. Entrepreneurs, *Journal of Developmental Entrepreneurship*, 6 (1), p. 59–83.
- Buchholz R.A., Rosenthal, S.B. (2005). The spirit of entrepreneurship and the qualities of moral decision making, *Journal of Business Ethics*, 60 (3), p. 307–315.
- Buck-Morss, S. (2002) *Dreamworld and Catastrophe: The Passing of Mass Utopia in East and West*. Cambridge, MA: MIT Press.
- Carland, J.W., Hoy, F., Boulton, W.R. & Carland, J.A. (1984). Differentiating small business owners from entrepreneurs, *Academy of Management Review*, 9(2), p. 354–359.

- Carland, James W., I., II, Carland, James W., Jr, Carland, J. A. C., & Pearce, J. W. (1995). Risk taking propensity among entrepreneurs, small business owners and managers, *Journal of Business and Entrepreneurship*, 7(1), p. 15.
- Chau L.L., Siu W. (2000). Ethical decision-making in corporate entrepreneurial organizations, *Journal of Business Ethics*, 23, p. 365–375.
- Cooper, A.C., Gimeno Gascón, F.J. (1992). Entrepreneurs, processes of founding, and new firm performance, in Sexton, D.L., Kasarda, J.D. (Eds), *The State of the Art of Entrepreneurship*, Kent Publishing Co, Boston, MA, p.301-40.
- Cromie, S. (2000). Assessing entrepreneurial inclination. Some approaches and empirical evidence, *European Journal of Organizational Psychology*, 9, p.7-30.
- Dainow, R. (1986). Training and education of entrepreneurs: The current state of the literature, *Journal of Small Business and Entrepreneurship*, 3(4), p. 10–23.
- Davidsson. M. (1995). *Determinants of entrepreneurial intentions*. Paper presented for the RENT IX Workshop. November 23–24, Piacenza, Italy.
- De Clercq D., Dakhli M. (2009). Personal Strain and Ethical Standards of the Self-Employed, *Journal of Business Venturing*, 24, p. 477–490.
- Deakins, D. (1999). *Entrepreneurship and Small Firms*. London: McGraw-Hill.
- Deleuze G., Guattari. F. (2001). *Thousand Plateaus*. London: Athlone Press.
- Donckels, R. (1991). Education and entrepreneurship experiences from secondary and university education in Belgium, *Journal of Small Business and Entrepreneurship*, 9(1), p. 35–42.
- Dunham L., McVea J.F., Freeman R.E. (2008) Entrepreneurial wisdom: incorporating the ethical and strategic dimensions of entrepreneurial decision-making, *International Journal of Entrepreneurship and Small Business*, 6 (1), p. 8–19.
- Fraboni, M., Saltstone, R. (1990). First and second generation entrepreneur typologies: dimensions of personality, *Journal of Social Behavior and Personality*, 5, p.105-13.
- Frese, M., Chell, E., Klandt, H. (2000). Psychological approaches to entrepreneurship. Introduction, *European Journal of Work and Organizational Psychology*, 9 (1), p.3-6.
- Friedman, TL., (2007). *The World Is Flat 3.0: A Brief History of the Twenty-first Century*. Pan MacMillan Australia: Picador.
- Fronza Y., Moriceau J-L. (2008). I am not your hero: change management and culture shocks in a public sector corporation, *Journal of Organizational Change Management*, 21 (5), p. 589 – 609.
- Gilroy, P. (1993). *The Black Atlantic: Modernity and Double-Consciousness*. Harvard University Press.
- Gorman, G., Hanlon, D., & King, W. (1997). Some research perspectives on entrepreneurial education, enterprise education and education for small business management: A ten year review, *International Small Business Journal*, 15(3), p. 56–77.
- Hall, S. (Ed) (1997). *Representation: Cultural Representations and Signifying Practices*, Sage Publications & Open University: 1 edition.
- Hayek, F. A. (1994). *The Road to Serfdom*. University Of Chicago Press.
- Holler, M.J., Host, V., Kristensen, K. (1992). Decision on strategic markets: an experimental study, *Scandinavian Journal of Management*, 8, p.133-46.
- Jacobowitz, A. and Vilder, D. (1982). Characteristics of entrepreneurs: Implications for vocational guidance, *Vocational Guidance Quarterly*, 30(3), p. 252–257.
- Kantor, J. (1988). Can Entrepreneurship: Be Taught? A Canadian Experiment, *Journal of Small Business and Entrepreneurship*, 5(4), p. 12–19.
- Kets de Vries, M.F.R. (1976). What makes entrepreneurs entrepreneurial?, *Business and Society Review*, 17, p.18-23.
- Koh, H.C. (1996). Testing hypotheses of entrepreneurial characteristics, *Journal of Managerial Psychology*, 11, p.12-25.
- Kraidy, Marwan M. (2005). *Hybridity, Or The Cultural Logic Of Globalization*. Philadelphia, Pennsylvania: Temple University Press.
- Krueger, N.F. & Brazeal, D.V. (1994). Entrepreneurial potential and potential entrepreneurs, *Entrepreneurship: Theory and Practice*, 18(3), p. 91–104.
- Longenecker J.G., McKinney J.A., Moore C.W. (1988). Egoism and independence: entrepreneurial ethics, *Organizational Dynamics*, 16, p. 64–72.

- Longenecker J.G., McKinney J.A., Moore C.W. (1989). Do smaller firms have higher ethics? *Business and Society Review*, 71, p. 19–21.
- McMullan, W.E., Chrisman, J.J., & Vesper, K.H. (2002). Lessons from successful innovations in entrepreneurial support programming, in Chrisman, J.J., Holbrook, J.A.D., & Chua, J.H. (eds.), *Innovation and Entrepreneurship in Western Canada: From Family Businesses to Multinationals*. Calgary, Alberta: University of Calgary Press.
- Mill, J.S. (1848). *Principles of political economy with some of their applications to social philosophy*. London: John W. Parker.
- Nicholson, N. (1988). Personality and entrepreneurial leadership: a study of the head of the UK's most successful independent companies, *European Management Journal*, 16, p.529-39.
- Payne, B. Joyner (2006). Successful U.S. entrepreneurs: identifying ethical decision-making and social responsibility behaviors, *Journal of Business Ethics*, 65 (3), p. 203–217.
- Pines, A.M., Sadeh, A., Dvir, D., Yanai, Y.O. (2002). Entrepreneurs and managers: similar yet different?, *International Journal of Organizational Analysis*, 10(2), p.172-90.
- Robinson, P.B. & Sexton, E.A. (1994). The effect of education and experience on self-employment success, *Journal of Business Venturing*, 9(2), p. 141–156.
- Said, EW. (1979). *Orientalism*. Vintage: 1st Vintage Books Ed.
- Schumpeter, J.A. (1934). *The theory of economic development*. Cambridge, MA: Harvard University Press.
- Sen, A. (2000). *Development as Freedom*. New Zealand: Anchor.
- Shapero, A. & Sokol, L. (1982). The social dimensions of entrepreneurship, in C.A. Kent, D.L. Sexton, & K.H. Vesper (eds.), *Encyclopedia of Entrepreneurship*, 72–90. Englewood Cliffs, NJ: Prentice Hall.
- Sklair, L. (1991). *Sociology of the Global System Social Change in Global Perspective*. Johns US: Hopkins University Press
- Smith, A. (1991). *Wealth of Nations*. US: Prometheus Books.
- Solomon, G.T. & Fernald, L.W. (1991). Trends in small business management and entrepreneurship education in the United States, *Entrepreneurship Theory and Practice*, 1(3), p. 25–39.
- Solomon, G.T., Winslow, E.K. (1988). Toward a descriptive profile of the entrepreneur, *Journal of Creative Behavior*, 22, p.162-71.
- Stiglitz, Joseph E. (2003). *Globalization and Its Discontents*, US: W. W. Norton & Company.
- Teal E.J., Carroll A.B. (1999). Moral Reasoning Skills: Are Entrepreneurs Different?, *Journal of Business Ethics*, 19, p. 229–240.
- Young, J.E. (1997). Entrepreneurship education and learning for university students and practicing entrepreneurs, in D.L. Sexton & R.W. Smilor (eds.), *Entrepreneurship 2000*, 215–242. Chicago, Illinois: Upstart Publishing Company.

# THE MANAGEMENT OF SUPPLIERS SELECTION OF DANGEROUS SUBSTANCES FROM MINING INDUSTRY USING FUZZY LOGIC

*SÎRB Lucian*

*Ph.D. student, Faculty of Economics and Business Administration, "West" University, Timișoara, Romania, luciansirb86@yahoo.com*

**Abstract:** *This paper aims to develop a model or a tool based on fuzzy logic in selecting the most suitable suppliers of hazardous substances used in the mining industry, especially of those associated with the cyanide. In order to reduce the risk of having an ecological accident during transportation of dangerous substances from supplier to the mining site and implicitly in the discharge phase, but also and for economic reasons, I proposed a decisional selection model based on fuzzy logic, which takes into account the subjectivity of the human reasoning and which can be successfully applied within "Roșia Montană project", but not only.*

**Keywords:** selection, supplier, mining, fuzzy logic.

**JEL classification:** C52, C65, C67, D81, L72, L91, Q53, R41, Z00.

## 1. Introduction

Given the extremely market competitiveness in the contemporary period, we can state that a proper management of supply chain may represent the key to success of any company in the world. This topic has been the focus of numerous theoretical and practical studies. Dickson's paper (1966) is one of the first studies in the area of suppliers selection, the author identifying 23 criteria for evaluate the performance of suppliers, having at base the responses of 170 managers.

The suppliers play an important role in the production chain of a company and in its long term viability, thus the buying decisions are becoming primordial in achieving a sustained profitability. The constantly changing preferences of customers, the environmental issues, the changes of government regulations, the trade globalization or the internet are tendencies more and more pronounced of contemporary world and which have an impact on the complexity and importance of purchasing decisions and of supply chain (Yucel and Guneri, 2011). These decisions are often made in an uncertainty and vagueness environment, so that in this direction there are several authors who have analyzed the sources of uncertainty surrounding in the selection of a supply chain and which classify the sources of uncertainty in three main groups: demand, process/production and supply (Wang and Shu, 2007).

As regards the choice of ideal supplier, watching this aspect both in terms of efficiency and effectiveness, but also of quality, reliability and safety in delivery, here referring to the ecological aspect, there are more references in the literature regarding to the identification of the attributes of suppliers and then to the use of various techniques for assessing these attributes and for choosing the best supplier, among which we mention the Monte Carlo simulation technique (Thompson, 1990), the supplier evaluation using AHP (Teng and Jaramillo, 2005), the multi-object fuzzy programming and risk modeling (Dash Wu et al., 2010), the max-min fuzzy model (Amid et al., 2011) or the integrated fuzzy TOPSIS and MCGP approach (Liao and Kao, 2011).

Most times, after setting of attributes or criteria of performance of suppliers, it is questioning the method of making a final classification of these suppliers, in accordance with the weight of importance of each established criterion and with their performance with respect to these criteria. Referring on these aspects, of establishing the weight of importance of criteria and of assessing the performance of each possible supplier with respect to this criteria, we mention that most of the times take place under the spectrum of subjectivity and uncertainty of the human factor decision maker reasoning, which does not express in precise figures, but in an ambiguous, linguistically and subjective language.

A methodology that allows to decision maker to express his preferences in linguistics terms and which to model this uncertainty and subjectivity of human reasoning is based on the use of fuzzy logic and of its associated fuzzy sets. The fuzzy sets theory is a powerful tool for solving many problems in different areas, which involve certain degrees of uncertainty and ambiguity. Using the triangular fuzzy numbers and the fuzzy math operators, it is determined a fuzzy score for each supplier. These fuzzy scores are then converted into fixed values by the defuzzification process and the supplier with the

highest score in the rankings is selected. In the following, after reviewing literature in chapter 2 and after the description of methodology and research design from chapter 3, we will concretely see the application of this methodology in the selection process of suppliers of dangerous substances in the mining industry, respectively of cyanide, within “the Roșia Montană mining project”. The paper ends with a chapter of conclusions and with the related bibliography after browsing the specialty literature.

## **2. Literature review**

In 1965, Lotfi Zadeh from Berkeley University, California, considered “the father” of fuzzy logic, published his paper related to fuzzy sets, about which Negoită (2003, p. 53) mentions the following: “Zadeh rediscovers the fuzzification and promotes it with new ideas, thus becoming the master of fuzzy logic. Zadeh was the one who created the “fuzziness” term, when he referred to the vague set and the one who noted that the accuracy and the certainty are incompatible. He created the “fuzzy” word and also he said that the words can be represented as vague sets”.

In addition of those mentioned before, the Romanian authors such as Constantin V. Negoită or Dan Ralescu must be also specified, because they had and still have an outstanding contribution to the development and promotion of the idea and concepts of fuzzy logic, through their books and treatises, among which we mention “Application of fuzzy sets to systems analysis” (1975), “Expert systems and fuzzy systems” (1985) and “Vague sets and their applications” (1974). Recently, Negoită (2003) wrote his book entitled “Vaguely”, which in my opinion, in addition to the classical mathematical aspects about fuzzy logic, contains also a very large dose of philosophy regarding to the world in which we live viewed from a fuzzy perspective, this book being, therefore, especially for an inexperienced in fuzzy logic, a very effective pathfinder in discerning this concept, because the language and the manner of explaining as well as the analogy with the surrounding real world give a deep understanding of the concept of fuzzy logic and of fuzzy sets.

The fuzzy sets theory has various applications in different fields and it is used in the managerial decision making process for controlling the uncertainty and the imprecision of informations involved in the process. As a consequence of this fact, the technique or procedure of fuzzy multicriteria decision making (FMCDM) represents another aspect on which I will focus in continuing of my article and in the mirror to whom I will design the selection methodology of the best supplier. In the specialty literature have been published different approaches of various aspects of decision problems concerning to the implementation of the FMCDM technique regarding to the management of supply chain selection and not only, among which we mention the following authors: Chang, Wang, and Wang (2006); Xu and Chen (2007); Yang and Hung (2007); Chou, Chang, and Shen (2008); Wang (2008); Chang et al. (2011) or Buyukozcan and Cifci (2011). A revolutionary system has been used by Shemshadi et. al (2011) in order to assess the performance of suppliers in a supply chain, while Awasthi et. al (2010) have applied the fuzzy set theory for evaluating the environmental performances of suppliers, while Kuo et al. (2010) have applied the fuzzy neural network model for selecting the best supplier which takes into account both qualitative factors, but also the quantitative ones.

The recent findings integrate the FMCDM practice in a problem of fuzzy decision making at the level of a group, as it is shown by the researches of Chang and Wang (2006), Liu and Chen (2007), Yeh, Cheng and Chi (2007), Zeng, An and Smith (2007), Chang, Wu and Chen (2008) or Sanayei et al. (2010). Wu, Lu and Huang (2007) have combined the hierarchy analytical fuzzy process on several levels with the decision making process within a group for seeking a consensus regarding to the direction of action.

## **3. Methodology and research design**

In the specialty literature there are a lot of attributes or criteria after which the management of a company should focus in the selection of a supplier (Kahraman et al., 2003; Ohdar and Ray, 2004), among which we mention: the quality of products (services) provided; the level of prices of products (services); the delivery time of products (services); the additional services offered at delivery; the guarantees granted at purchase; the applied payment terms; providing assistance in the use of products; the innovation capacities; the financial position; receptivity; packing; the experience in business; the geographical location; reliability; safety; empathy; R&D capacity; flexibility; professionalism and not least the competence or expertise. Of course that the factors that are taken into account in the selection of suppliers are specific to each situation of the company concerned that will make appeal to them, so each company will develop its own selection criteria when will face with the election or finding of the most suitable suppliers.



Once that these criteria have been established, by the methodology of this article I propose the following directions: firstly to give a weight of performance to each selection criterion and secondly to evaluate the performance of each supplier with respect to these criteria. Both stages involve subjective assessments and estimates materialized by linguistic expressions and for handle with this ambiguity of information we appealed to fuzzy logic, which is a powerful tool for modeling of human subjective thinking by extending of traditional logic for including instantiations of partial truth.

### 3.1. Basic notions of fuzzy logic

It is well known that the purpose of all organizations in a competitive environment can be summarized in four words: to work more efficiently. Therefore, the business processes are under the imperative of taking the best decisions, otherwise they will not be able to be perform efficient in the increasingly more competitive global environmental specific to information society and that's why the informatization in enterprises primarily aims to achieve this target: more rapid and more efficient decisions.

The fuzzy logic reflects what people think and is proposing to shape the meaning of terms used in a context or another, the way how decisions are taken and the use of knowledge related to good sense or to the common sense. As a result, it helps the artifacts systems to become more human, that is intelligent systems. Zadeh (1965), considered the father of fuzzy logic, states the fuzzy term has concreteness, is immediately and descriptive and the fuzzy representation consists in using fuzzy sets theory and especially fuzzy logic as part of theory. The term of fuzzy logic in a broad sense, according to Zadeh (1965), is defined as: "The fuzzy logic is determined by a set of mathematical principles for knowledge representation based on degrees of membership and not on precisely in the sense of classical logic". In the abstract of his masterpiece article in this field of fuzzy logic, entitled "Fuzzy sets", which was practically the starter of new research, development and approach directions regarding the fuzzy logic, Zadeh (1965) defines the fuzzy sets as follows: (p. 338):

"A fuzzy set is a class of objects with continuous degrees of membership. Such a set is characterized by a membership function (characteristic) that assigns to each object a degree of membership which varies between 0 and 1. The notions of inclusion, union, intersection, complement, relation, convexity and others are extended to such sets and different properties of this notions are established in the context of fuzzy sets. Particularly, a separation theorem for the convex fuzzy sets is proven without the necessity that the fuzzy sets to be separated".

According to this definition, we can conclude that a fuzzy set can be metaphorically defined as a classic set with fuzzy limits. Let's take the variable  $X$ , considered the universe of discourse and its elements denoted by  $x$ . In the classical theory of sets, a set  $A$  in  $X$  is defined by relation (1) as a function  $f_A(x)$  called the characteristic function of the set  $A$ , thus:

$$f_A(x) \rightarrow 0,1 \quad (1)$$

$$\text{where } f_A(x) = \begin{cases} 1, & \text{if } x \in A \\ 0, & \text{if } x \notin A \end{cases}.$$

Such set does nothing more than maps or overlaps exactly the universe  $X$  on a set composed of two types of elements. For each element  $x$  of universe  $X$ , the characteristic function  $f_A(x)$  has value equal to 1 if  $x$  is an element of the set  $A$  and 0 otherwise.

In the fuzzy logic case, a fuzzy set  $A$  in the universe of discourse  $X$  is defined by the function  $\mu_A(x)$  called the membership function of the set  $A$  by the relation:

$$\mu_A(x): X \rightarrow [0,1] \quad (2)$$

where  $\mu_A(x) = 1$  if  $x$  belongs entirely to  $A$ ;

$\mu_A(x) = 0$  if  $x$  does not belong to  $A$ ;

$0 < \mu_A(x) < 1$  if  $x$  is only partially from  $A$ .

Is observed how the fuzzy set allows a continuous range of options. For each element  $x$  in  $X$ , the value of function  $\mu_A(x)$  indicates the degree of membership of  $x$  to  $A$  or the value of membership of element  $x$  to the set  $A$ . In other words, only the fuzzy set is able to offer an overrun of boundary between 0 and 1 of representation. This is the way in which it may represent linguistic values like: very small, small, medium, high, very high and others of this type. The fuzzy logic works with linguistic values,

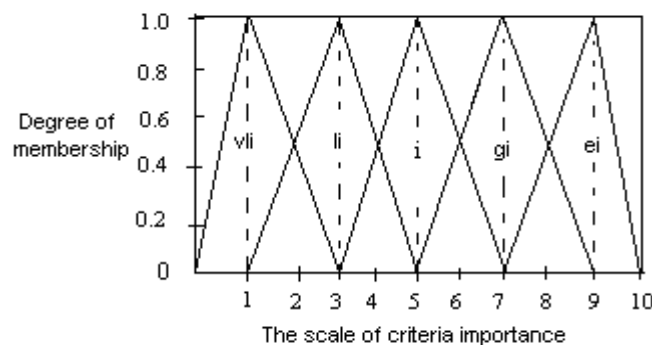
modeled by fuzzy sets, which in turn include fuzzy numbers, these combining them together using fuzzy math operators and being converted into real numbers by different procedures of defuzzification.

### 3.2. The evaluation of criteria importance and of suppliers performances with respect to criteria

The importance of supplier selection criteria it will be establish by the special expert nominated by the company concerned through a linguistic evaluation of the weight which is assigned its in the value chain of supply process, which then it will be converted into the corresponding triangular fuzzy number. This expert may be an employee of the company, specialist in the supply chain issues or may be an employee of a third party, employed by the company concerned, a person who has the necessary skills, knowledge and competencies to assess the importance of factors that contribute to the smooth conduct of the supply process. Of course that in this case we are witnessing to what is called the outsourcing of consultancy services and we must ensure that our objectives and goals are well understood by the consultancy firm concerned.

In figure 1, I represented the membership functions of weight of importance of supplier selection criteria, weights expressed by the decider expert through linguistic terms, as it follows: "very little important" (vli), "less important" (li), "important" (i), "great importance" (gi), "extremely important" (ei).

**Figure 1: The membership functions of the importance of selection criteria**



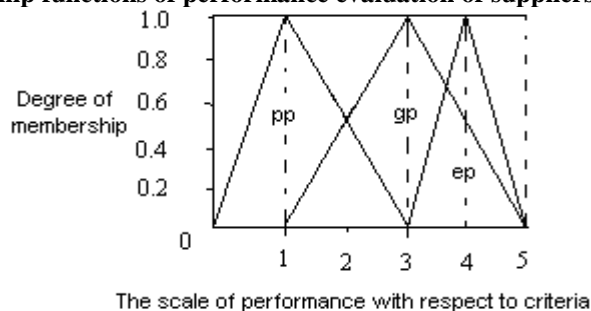
The weights above mentioned, according to design from figure 1, are converted into the related fuzzy triangular numbers according to table 2.

**Tabel 1 – The linguistic scale of weight of criteria importance**

Linguistic value	Fuzzy value
Very little important (vli)	(0,1,3)
Less important (li)	(1,3,5)
Important (i)	(3,5,7)
Great importance (gi)	(5,7,9)
Extremely important (ei)	(7,9,10)

The performance of suppliers with respect to each selection criterion is evaluated using three linguistic values, as follows: "poor performance" (pp), "good performance" (gp) and "excellent performance" (ep). These values correspond to some triangular fuzzy numbers represented on a numerical scale from 1 to 5. The membership functions are represented in figure 2.

**Figure 2 – The membership functions of performance evaluation of suppliers with respect to selection criteria**



The linguistic scale of the performance evaluation of suppliers with respect to each selection criterion is exposed in table 3, where are given the corresponding fuzzy scores according to the choice of model representation from the previous figure.

**Tabel 2 – The linguistic scale of performance evaluation with respect to the selection criteria**

Linguistic value	Fuzzy value
Poor performance (pp)	(0,1,3)
Good performance (gp)	(1,3,5)
Excellent performance (ep)	(3,4,5)

It is therefore apparent that the subjectivity of human factor decision maker reasoning, respectively of his linguistic evaluations, can be easily modeled using triangular fuzzy numbers, which practically represent some sets consisting of three real numbers, in which the middle one represents the maximum of membership function of an element from the universe of discourse to that set and it is equal with value 1, while the extremes of fuzzy triangular number, respectively the upper and the lower value represents its limits, respectively the values in which an element from the universe of discourse has the membership function equal to 0 to that set.

### 3.3. Development of methodology

The previous evaluations materialized in linguistic values and then converted into corresponding triangular fuzzy numbers will operationalize themselves in the methodology described in the following, appealing to the use of two algebraic operations specific for fuzzy sets namely the addition and the multiplication. Thus, considering that we have two triangular fuzzy numbers  $X = (x_1, x_2, x_3)$  and  $Y = (y_1, y_2, y_3)$ , results the following algebraic operations between them:

- addition:  $X + Y = (x_1 + y_1, x_2 + y_2, x_3 + y_3)$  ;

(3)

- multiplication:  $X * Y = (x_1 y_1, x_2 y_2, x_3 y_3)$  .

(4)

After all operations taking place after fuzzification stage, for each supplier will result a fuzzy score, which will have to be defuzzified by the centroid method, for achieving to a fixed, real value, in the purpose of allowing determination of the best supplier, so that the one which will have the highest score will be that selected.

In figure 3, I will present in a schematic form the fuzzy algorithm which contains the steps to be followed to select the best option regarding to the supplier selection.

## 4. The application of fuzzy methodology for selecting the supplier of cyanide within "the Roșia Montană mining project"

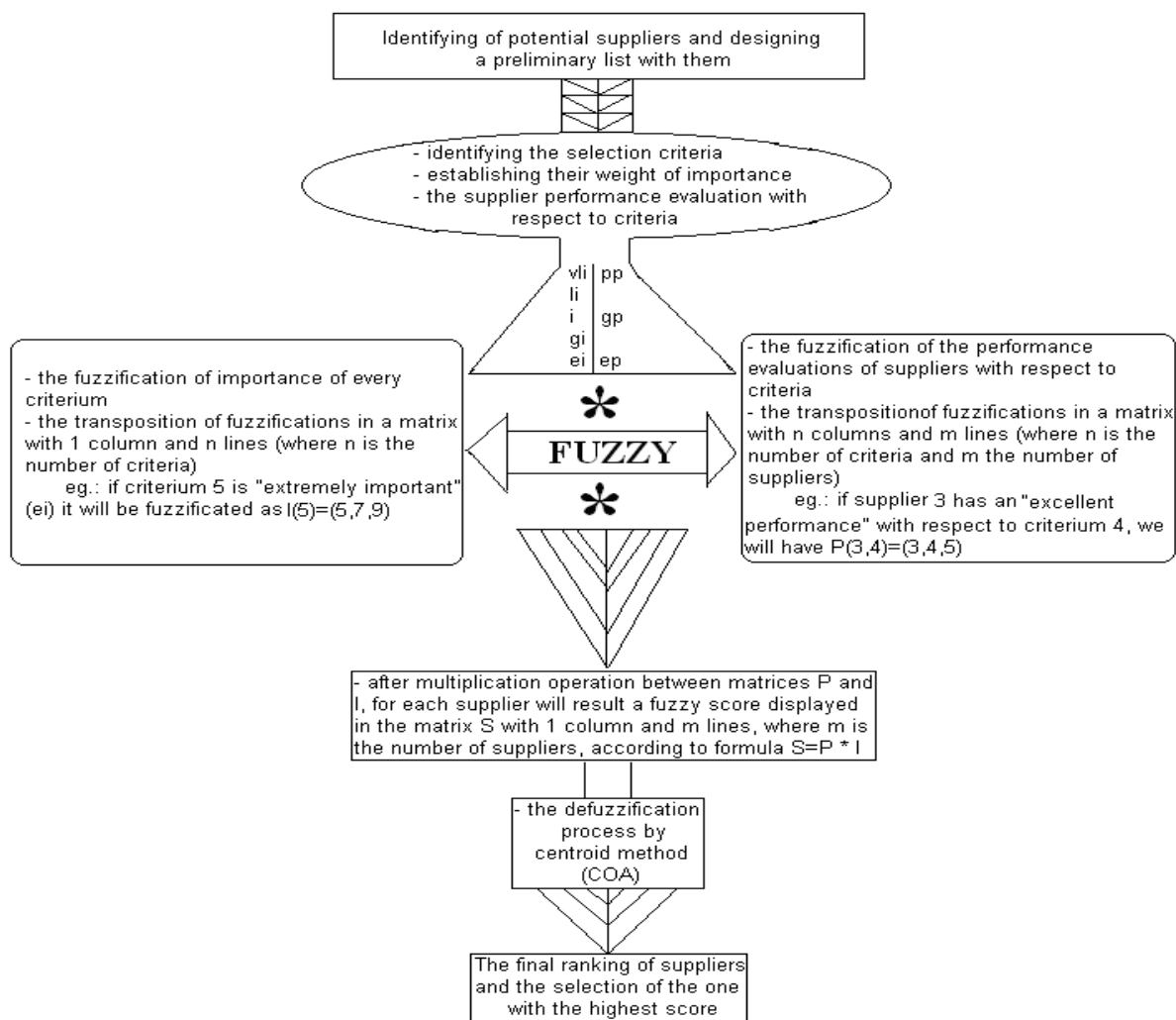
The mining project from Roșia Montană, which lately is highly publicized in Romanian mass-media, but also international, is performed by the "Roșia Montană Gold Corporation" company (RMGC), which is a company with majority private capital, owned by the canadian company Gabriel Resources, in proportion of 80,46% and by the Romanian state through Minvest Deva and other small shareholders, in proportion of 19,54% and which is dedicated to responsible mining and to the sustainable development of the communities in which is conducting the activity that consist in exploitation of mineral resources of gold and silver in the Roșia Montană perimeter, locality located in the center of Romania, Alba county, at 80 km N-V far away from Alba Iulia municipality and 80 km N-E far away from Deva municipality.

The project is still in the exploration stage, because there are a whole series of approvals and certificates which must be approved by the Romanian state for entering in the operational phase itself. It should be noted that there are a lots of obstacles from certain human or social-human categories regarding the approval of this project, mainly due to the associated risk of pollution, both at local and national, but also at international level, especially from the government of Hungary. This is mainly due to the use of the substance called cyanide for extracting gold and silver within technological process.

Regarding to this aspect, it have produced a report of the study on environmental impact assessment for "the Roșia Montană project" (EIA, 2011), report requested by the Romanian and Hungarian Government and elaborated by the Independent Group of International Experts (IGIE), group composed from several specialists in the field. In this report is made reference, in addition to the classical problems of pollution from extractive mining industry, even to aspects related to the supply chain with cyanide, in which are debated more points that I will detail in the following and which will underpin to

the implementation of the fuzzy algorithm of selection of the most suitable cyanide supplier previously designed.

**Figure 3: The fuzzy algorithm of methodology of supplier selection**



EIA (2011) report (Section 5 of Plan G) describes the supply with cyanide from international sources. The delivery of sodium cyanide by truck from Romanian sources was rejected, because the project proponents indicate that the Romanian manufacturers and transporters do not currently subscribe to the International Cyanide Management Code. At a consumption of cyanide of 11-13 kt/year, will circulate 500-600 trucks with dangerous cargo (on average two trucks per day) from port/factory on a network of roads of poor quality up to Roşia Montană. In the EIA documentation are presented five alternative routes for cyanide transport and the project require the transport of cyanide in solid form in containers specially reinforced and sealed up to the project site. The company chosen for cyanide transport must be named and the certificates and its declaration of cooperation must be attached to EIA documentation (Environmental Impact Assessment) and it must be obliged to acquire itself the Cyanide Management Code and to respect its standards.

Next, the project proponents sets out certain criteria of choosing the supplier, thus, as part of contractual arrangements, they will prepare written agreements with the producers and transporters of cyanide which emphasizes the responsibility for health, safety and environmental issues arising during each phase of transport. Moreover, the project proponents indicate that these contracts will also specify that any responsibilities stipulated applicable to the RMGC, to the cyanide manufacturers and transporters are extending to any subcontractors used by these parts for any activity related to cyanide transport and that to all parties involved are required to them to inform the subcontractors about their responsibilities.

Also, it must be developed a plan of response and prevention of pollution accidents for the transport of cyanide and of other hazardous chemicals. The bridges over waters and the portions of road and rail along watercourses must be considered in this document as environmental hot spots and must be inventoried. It must be developed scenarios for accidental pollution events in these points.

Taking into account the fuzzy algorithm in figure 3 and the evaluation of the importance weight of those 14 selection criteria listed below in table 4, converted then in the related fuzzy triangular numbers, I propose a list of international suppliers of cyanide, four in number, respectively Metalor Technologies Corporation (USA), Xi'an Metals & Minerals (China), Goldmine Investment and Rimmyrose (Ghana) and SN Recovery Works (South Africa), of which it will choose the most convenient one after implementing the fuzzy algorithm.

**Table 3 – The evaluation of weight of importance of selection criteria of cyanide supplier**

<b>Selection criteria</b>	<b>Linguistic value – fuzzy</b>
1) The qualification of drivers/operators and the training for handling vehicles	gi - (5,7,9)
2) The training for accident prevention, reaction to emergencies and for safety of drivers/operators of transporters throughout the transport process (including the responsibilities for a strict maintenance of seriousness of drivers/operators during transportation)	ei - (7,9,10)
3) Packing	i - (3,5,7)
4) Labelling	vli - (0,1,3)
5) Storage before transport	i - (3,5,7)
6) The evaluation and selection of routes for reducing the risks, including community consultation and informing	ei - (7,9,10)
7) Establishment of protocols for driver-RMGC communication and automatically tracking of transport using the global positioning systems (GPS) or other automated methods	i - (3,5,7)
8) The storage and security at ports of entry and to the cargo transfer points	gi - (5,7,9)
9) Charging, storage and intermediate discharge during transportation	li - (1,3,5)
10) The transport to processing plant of “Roşia Montană project”	ei - (7,9,10)
11) Discharging at the processing plant	fpi (0,1,3)
12) Proper maintenance and operation of transport vehicles during each delivery	gi - (5,7,9)
13) The coordination of response actions to security and emergency during the entire transport process	ei - (7,9,10)
14) Elaboration and submission of transport reports and immediate reporting of transport hazards or of unsafe roads and transport conditions	gi - (5,7,9)

After this step, it will be evaluated the weight of each cyanide supplier's performance of the four ones proposed for selection regarding on how performing they are with respect to the selection criteria (table 5). Underline once again that the evaluations of RMGC company's expert are subjective, in the sense that are expressed by linguistic values, so that the proposed fuzzy algorithm in figure 3 is an effective tool for thinking modeling and approximating human reasoning manifested by linguistic expressions, in order to eliminate the uncertainty and the ambiguity.

**Table 4 – The performance evaluation of suppliers with respect to selection criteria**

<b>Criteria</b>	<b>Suppliers performance - fuzzy</b>			
	<b>Metalor Technologies Corporation (USA)</b>	<b>Xi'an Metals &amp; Minerals (China)</b>	<b>Goldmine Investment and Rimmyrose (Ghana)</b>	<b>SN Recovery Works (South Africa)</b>
<b>1)</b>	gp - (1,3,5)	pp - (0,1,3)	gp - (1,3,5)	ep - (3,4,5)
<b>2)</b>	pp - (0,1,3)	ep - (3,4,5)	gp - (1,3,5)	pp - (0,1,3)
<b>3)</b>	ep - (3,4,5)	gp - (1,3,5)	ep - (3,4,5)	gp - (1,3,5)
<b>4)</b>	gp - (1,3,5)	pp - (0,1,3)	ep - (3,4,5)	pp - (0,1,3)
<b>5)</b>	gp - (1,3,5)	gp - (1,3,5)	gp - (1,3,5)	gp - (1,3,5)
<b>6)</b>	pp - (0,1,3)	pp - (0,1,3)	pp - (0,1,3)	gp - (1,3,5)
<b>7)</b>	gp - (1,3,5)	ep - (3,4,5)	gp - (1,3,5)	pp - (0,1,3)
<b>8)</b>	gp - (1,3,5)	gp - (1,3,5)	gp - (1,3,5)	ep - (3,4,5)
<b>9)</b>	ep - (3,4,5)	pp - (0,1,3)	pp - (0,1,3)	ep - (3,4,5)
<b>10)</b>	pp - (0,1,3)	ep - (3,4,5)	gp - (1,3,5)	gp - (1,3,5)
<b>11)</b>	gp - (1,3,5)	gp - (1,3,5)	ep - (3,4,5)	pp - (0,1,3)
<b>12)</b>	pp - (0,1,3)	pp - (0,1,3)	ep - (3,4,5)	gp - (1,3,5)
<b>13)</b>	ep - (3,4,5)	pp - (0,1,3)	pp - (0,1,3)	ep - (3,4,5)
<b>14)</b>	ep - (3,4,5)	gp - (1,3,5)	gp - (1,3,5)	gp - (1,3,5)

Next, after transposing the table 4 in the form of a matrix with 14 rows and 1 column denoted by  $I$ , respectively the table 5 in the form of a matrix with 4 rows and 14 columns denoted by  $P$  and after multiplying these two matrices according to formula 5, it will result a solution matrix denoted by  $S$ , composed of 4 rows and 1 column, which will contain those four aggregated fuzzy weights corresponding to scores of those four suppliers.

$$S = P * I \quad (5)$$

$$S = \begin{bmatrix} s_1 \\ s_2 \\ s_3 \\ s_4 \end{bmatrix} = \begin{bmatrix} p_{11} & p_{12} & p_{13} & p_{14} & p_{15} & p_{16} & p_{17} & p_{18} & p_{19} & p_{110} & p_{111} & p_{112} & p_{113} & p_{114} \\ p_{21} & p_{22} & p_{23} & p_{24} & p_{25} & p_{26} & p_{27} & p_{28} & p_{29} & p_{210} & p_{211} & p_{212} & p_{213} & p_{214} \\ p_{31} & p_{32} & p_{33} & p_{34} & p_{35} & p_{36} & p_{37} & p_{38} & p_{39} & p_{310} & p_{311} & p_{312} & p_{313} & p_{314} \\ p_{41} & p_{42} & p_{43} & p_{44} & p_{45} & p_{46} & p_{47} & p_{48} & p_{49} & p_{410} & p_{411} & p_{412} & p_{413} & p_{414} \end{bmatrix} * \begin{bmatrix} i_1 \\ i_2 \\ i_3 \\ i_4 \\ i_5 \\ i_6 \\ i_7 \\ i_8 \\ i_9 \\ i_{10} \\ i_{11} \\ i_{12} \\ i_{13} \\ i_{14} \end{bmatrix}$$

Following the calculations, resulted the matrix  $S$  with the aggregated fuzzy scores corresponding to each supplier in accordance with each row of the matrix:

$$S = \begin{bmatrix} (64,208,462) \\ (67,203,448) \\ (59,224,490) \\ (84,246,494) \end{bmatrix}$$

For a correct hierarchy of suppliers we will have to defuzzificate the triangular fuzzy numbers corresponding to the fuzzy scores of each supplier from each row of the matrix  $S$  in order to obtain a real value. For this we will use the centroid method (COA), which is the best known and the most used method within defuzzification process. Thus, if we have a triangular fuzzy number  $X = (x_1, x_2, x_3)$ , the center of gravity is calculated as follows:

$$COA(X) = \frac{x_1 + x_2 + x_3}{3} \quad (6)$$

After defuzzification, the matrix  $S$  will look like this:

$$S = \begin{bmatrix} 244,66 \\ 239,33 \\ 257,66 \\ 274,66 \end{bmatrix}$$

For a more coherent view of results and of final ranking for the selection of the best supplier, we have the following table:

Table 5 – The final ranking of suppliers			
Supplier	Fuzzy score	Real value	Ranking
Metalor Technologies Corporation (USA)	(67,208,462)	244,66	III
Xi'an Metals & Minerals (China)	(67,203,448)	239,33	IV
Goldmine Investment and Rimmyrose (Ghana)	(59,224,490)	257,66	II
SN Recovery Works (South Africa)	(84,246,494)	274,66	I

As can be seen, SN Recovery Works company from South Africa is the one who got the highest score following the defuzzification process (274,66), therefore, being the most suitable for selection

taking into account the correlation between the weight of importance of selection criteria and its performance evaluation with respect to each of these selection criteria.

## 5. Conclusions

Through this paper I proposed to develop an effective and performing tool to cope with uncertainty and risk to which are subjected the human decision makers in the contemporary world regarding the selection of suppliers, in the context of a globalization and of a global competitiveness of the market increasingly more pronounced and of development of information technology in a fast pace.

It is known that behind the production flow of a successful company is a logistics or supply chain very well done, that's why a good decision about choosing of the most suitable supplier of products and services represent the key towards an organization's overall performance and towards the survival and continuity in conditions of performance of its activities in an increasingly fierce and competitive environment.

The methodology used in selecting the most appropriate supplier and concretized in the fuzzy algorithm shown in figure 3 represents a very effective tool in choosing the most suitable supplier, taking into account as I mentioned earlier of increasingly higher difficulty of decisional process of acting in an environment surrounded by uncertainties, subjectivism and risk factors. That's why, the quality of decision is imperative to be one of high level, to bring economic, social and ecological benefits especially to a company within mining industry.

The proposed methodology can be also successfully applied even in other domains, given the circumstances and the degree of its applicability. It has to be mentioned once again that in the practical study that I exposed in chapter 4, both the weight of criteria importance, but also the evaluation of supplier performance with respect to the selection criteria, were established by the RMGC company after a subjective reasoning and evaluations of the expert, specific to human thinking and materialized through linguistic expressions. To cope with this uncertainty and ambiguity of human factor decision making, I appealed to a mathematical modeling in a fuzzy environment of linguistic values associated to linguistic variables specific to our situation, which through fuzzy addition and multiplication operators and then through defuzzification process gives us an effective solution for choosing the most appropriate supplier of cyanide for "the Roşia Montană project".

In the future it could develop certain computer programs or softs, implemented either in a programming language, either in a database, which based on the algorithm proposed in figure 3, after the introduction of input data and the application of fuzzy operators over corresponding matrices which incorporates the weight of importance of selection criteria and the performance evaluation of each decision alternative with respect to this criteria, to instantaneous and in the same time with accurately provide the solution, without errors, thus limiting the time period related to calculations in the conditions of let's say a classical way of working or calculating, without using information technology and also contributing to the reliability and accuracy of results.

## 6. References

- Amid, A.; Ghodsypour, S. H.; O'Brien, C. (2011) A weighted max–min model for fuzzy multi-objective supplier selection in a supply chain, *Int. J. Production Economics*, 131, p. 139–145.
- Awasthi, A.; Chauhan, S.; Goyal, S. K. (2010) A fuzzy multicriteria approach for evaluating environmental performance of suppliers, *Int. J. Production Economics*, 126, p. 370–378.
- Buyukozcan, G.; Cifci, G. (2011) A novel fuzzy multi-criteria decision framework for sustainable supplier selection with incomplete information, *Computers in Industry*, 62, p. 164–174.
- Chang, B.; Chang C.-W.; Wuc, C.-H. (2011) Fuzzy DEMATEL method for developing supplier selection criteria, *Expert Systems with Applications*, 38, p. 1850–1858.
- Chang, C. W.; Wu, C. R.; Chen, H. C. (2008) Using expert technology to select unstable slicing machine to control wafer slicing quality via fuzzy AHP, *Expert Systems with Applications*, 34, p. 2210–2220.
- Chang, P. C.; Wang, Y. W. (2006) Fuzzy Delphi and back-propagation model for sales forecasting in PCB industry, *Expert Systems with Applications*, 30, p. 715–726.
- Chang, S. L.; Wang, R. C.; Wang, S. Y. (2006) Applying fuzzy linguistic quantifier to select supply chain partners at different phases of product life cycle, *International Journal of Production Economics*, 100, p. 348–359.

- Chou, S. Y.; Chang, Y. H.; Shen, C. Y. (2008) A fuzzy simple additive weighting system under group decision-making for facility location selection with objective/subjective attributes, *European Journal of Operational Research*, 189, p. 132–145.
- Dash Wu, D.; Zhang Y.; Wud, D.; Olson, D. L. (2010) Fuzzy multi-objective programming for supplier selection and risk modeling: A possibility approach, *European Journal of Operational Research*, 200, p. 774–787.
- Dickson, G.W. (1966) An analysis of vendor selection systems and decisions, *Journal of Purchasing*, 2 (1), p. 5–17.
- EIA (2011) *Environment Impact Assessment for the Roșia Montană project*, Available at <http://www.rmgc.ro/proiectul-rosia-montana/mediu/evaluarea-impactului-asupra-mediului-la-rosia-montana.html>, Accessed 23.03.2012.
- Kahraman, C.; Cebeci, U.; Ulukan, Z. (2003) Multicriteria supplier selection using fuzzy AHP, *Logistic Information Management*, Vol. 16, No. 6, p. 382-94.
- Kuo, R. J.; Hong S. Y.; Huang Y.C. (2010) Integration of particle swarm optimization-based fuzzy neural network and artificial neural network for supplier selection, *Applied Mathematical Modelling*, 34, p. 3976–3990.
- Liao, C.-N.; Kao, H.-P. (2011) An integrated fuzzy TOPSIS and MCGP approach to supplier selection in supply chain management, *Expert Systems with Applications*, 38, p. 10803–10811.
- Liu, Y. C.; Chen, C. H.; (2007) A new approach for application of rock mass classification on rock slope stability assessment, *Engineering Geology*, 89, p. 129–143.
- Negoită, C.V. (2003) *Vaguely*. Pitești (Romania): Parallel 45 Publishing.
- Ohdar, R.; Ray, P. K. (2004) Performance measurement and evaluation of suppliers in supply chain: an evolutionary fuzzy-based approach, *Journal of Manufacturing Technology Management*, Vol. 15, No. 8, p. 723-34.
- Sanayei, A.; Farid Mousavi, S.; Yazdankhah, A. (2010) Group decision making process for supplier selection with VIKOR under fuzzy environment, *Expert Systems with Applications*, 37, p. 24–30.
- Shemshadi, A.; Shirazi, H.; Toreihi, M.; Tarokh, M. J. (2011) A fuzzy VIKOR method for supplier selection based on entropy measure for objective weighting, *Expert Systems with Applications*, Volume 38, Issue 10, p. 12160-12167.
- Teng, G.S.; Jaramillo, H. (2005) A model for evaluation and selection of suppliers in global textile and apparel supply chains, *International Journal of Physical Distribution & Logistics Management*, Vol. 35, No. 7, p. 503-23.
- Thompson, K. N. (1990) Supplier profile analysis, *Journal of Purchasing and Materials Management*, Vol. 26, No. 1, p. 11-18.
- Wang, J.; Shu, Y. F. (2007) A possibilistic decision model for new product supply chain design, *European Journal of Operational Research*, 177 (2), p. 1044–1061.
- Wang, Y. J. (2008) Applying FMCDM to evaluate financial performance of domestic airlines in Taiwan, *Expert Systems with Applications*, 34, p. 1837–1845.
- Wu, W.-H.; Lu, H.-L.; Huang, D.-Y. (2007) Government expenditure decision-making under fuzzy relations, *International Journal of Services and Standards*, Vol. 3, No. 3, p. 289-98.
- Xu, Z. S.; Chen, J. (2007) An interactive method for fuzzy multiple attribute group decision making, *Information Sciences*, 177, p. 248–263.
- Yang, T.; Hung, C.-C. (2007) Multiple-attribute decision making methods for plant layout design problem, *Robotics and Computer-Integrated Manufacturing*, 23, p. 126–137.
- Yeh, D. Y.; Cheng, C. H.; Chi, M. L. (2007) A modified two-tuple FLC model for evaluating the performance of SCM: By the Six Sigma DMAIC process, *Applied Soft Computing*, 7, p. 1027–1034.
- Yucel A.; Guneri, A. F. (2011) A weighted additive fuzzy programming approach for multi-criteria supplier selection, *Expert Systems with Applications*, 38, p. 6281–6286.
- Zadeh, L. (1965) Fuzzy sets, *Information and Control*, Vol. 8, p. 338-357.
- Zeng, J.; An, M.; Smith, N. J. (2007) Application of fuzzy based decision making methodology to construction project risk assessment, *International Journal of Project Management*, 25, p. 589–600.



# **BUSINESS LEADERSHIP BIASES: ANDROCENTRISM, ETHNOCENTRISM AND CHRONOCENTRISM**

**SOFICĂ Aurelian**

*Teaching assistant, Ph.D., Faculty of Business, Department of Business Administration in Hospitality Services,  
“Babeş-Bolyai” University, Cluj-Napoca, Romania, aurelian.sofica@tbs.ubbcluj.ro*

**NEGRUŞA Adina**

*Associate professor, Ph.D., Faculty of Business, Department of Business Administration in Hospitality Services,  
“Babeş-Bolyai” University, Cluj-Napoca, Romania, adina.negrusa@tbs.ubbcluj.ro*

**Abstract:** *The aim of the paper is to explore the unconscious biases that accompany the business leadership icons. The main objectives of the paper are: to look for evidence of leadership biases on ground of gender (androcentrism), ethnicity (ethnocentrism) and age (chronocentrism); to look for potential reasons behind the biases and for potential effects at the organizational and social level. The article confirms some of the evidence from various international empirical or theoretical studies, and proposes some new perspectives.*

**Key words:** Leadership, biases, androcentrism, ethnocentrism, chronocentrism.

**JEL classification:** D63, J24, J71, O15

## **1. Introduction**

The starting point of this article is another article – “How (Un)Ethical are you?”. The question-title of this creative paper underlines the fact that the majority of us harbour unconscious and unethical biases, which prevent us from recognizing high potential individuals and taking good decisions. Implicit prejudice, as it is called by the authors, makes you overlook segments of the human capital and as a consequence generates a “stereotype tax”. Judging on the base of unconscious stereotypes rather than merit exerts a high business cost (Banaji, Bazerman and Chugh, 2003). “What makes implicit prejudice so persistent is that it is rooted in fundamental mechanics of thought. Early on, we learn to associate things that commonly go together and expect them to inevitably coexist: thunder and rain for instance, or gray hair and old age.” (Banaji, Bazerman, Chugh, 2003, p.57) Unfortunately this kind of functional associations can blind us in those instances when the reality is deeper than the one perceived.

A special breed of stereotype is considered “implicit stereotype”, the kind of stereotype that operates outside conscious cognition, and represents introspectively unidentified traces of past experiences that mediate attributions and qualities for members of a social category. For example, in a special test (Implicit Association Test) used at Harvard Business School, participants were asked to take split-second association between words with positive or negative connotations and images representing different types of people. The findings revealed that unconscious biases were present in 75% of the cases, and they show implicit biases favouring the young, the rich and the whites. The split-second reaction bypasses the conscious behaviour and reveals the hidden assumptions. Usually when people are asked if they consider themselves as ethical, the majority give a positive answer, but in fact, we have an illusion of objectivity, an inflated self-perception. (Greenwald and Banaji, 1995)

This might also be the case for the leadership models that people have in mind. Given a number of leaders that we have in mind by default, we automatically associate these specific examples with the idea of leadership (we associate things that commonly go together and expect them to inevitably coexist – as Banaji, Bazerman and Chugh (2003) said earlier). So, the main idea of the article is that these “emergency” examples of leaders we have, representing the most accessible and concrete information, and when accessed in hurry it might reflect unconscious biases regarding leadership.

Can we find something interesting when we ask people to name, in a split-second (actually a minute in our case), three business leaders that inspires them? Can we find evidence of leadership biases on grounds of gender (androcentrism), ethnicity (ethnocentrism) and age (chronocentrism)? If the answers to these questions are positive then we can assume a crisis of leadership, a crisis generated by faulty models and stereotypical thinking with long term implications on business environment.

## 2. Literature review

*Leadership is gendered* and this is a blunt reality even if in the last 50 years or so, the degree of social awareness gradually increased. The under-representation of women in top leadership positions is critical (Bass and Avolio, 1994; Gardiner and Tiggemann, 1999; Eagly and Carli, 2007; Torchia, Calabro and Huse, 2011). For example, only 6% members in the board of directors or CEOs for the Fortune 500 were women in USA and in the European Union the percentage goes down to 1%. In order to correct this kind of statistics it is vital “to ensure a critical mass of women in executive positions – not just one or two women – to head off the problems that come with tokenism” (Eagly and Carli, 2007, p.70). Tokenism is a term popularized by Rosabeth Moss Kanter in her 1977 book, “Man and Woman of the Corporation” (Zimmer, 1988; Yoder, 1991) and consists in a limited inclusion or representation of traditionally marginalized groups, creating a false appearance of inclusive practice. When an organizational subgroup is composed of less than 15% of the whole group, then a series of unwanted secondary effects start to manifest: first they receive heightened attention, visibility and pressure; secondly the boundary is heightened around the group and they are isolated from informal and professional networks, and finally, a series of incidents start to appear as a result of gendered-stereotyped roles (Yoder, 1991).

There are various proposed reasons for this situation: women lack the “envisioning” dimension of leadership (Ibarra and Obodaru, 2009); women are dropping out from the mainstream career due to demands in caring for elderly parents or children and the re-entry is difficult (Hewlett, 2002; Hewlett and Luce, 2005); women lack ambition – one third of the women consider themselves ambitious and fifty percent of the men consider themselves ambitious or very ambitious (Hewlett and Luce, 2005); and finally, maybe the movie industry is heavily biased by “macho” managers and organizational heroes and thus, from this process of social construction, emerges a patriarchal model of leadership (Panayiotou, 2010). A more historical reason is given by Messick and Bazerman (1996). They consider that we have a kind of historic inertia, and because twenty years ago almost all business people were men, there’s a good chance that people who come to mind as effective leaders are men. The optimism of some inspirational male authors (Peters, 2006) manifested in the title of one of his chapter (“Meet the New Boss: Women Rule”), is counterbalance by the harsh reality of numbers and the need for a “critical mass” (Eagly and Carli, 2007), a small critical mass of... three in some authors opinions (Torchia et al, 2011).

*Leadership is cronocentric*, meaning that it’s influenced by an age interval. In a classic article, The Seven Ages of Leadership, leadership practice has a certain age mark, reflected in the leadership style and efficiency (Bennis, 2004). A leader starts as an “infant executive”, frightened by the idea of leading. Then comes the “schoolboy with shiny face”, entering in a low key the leadership stage. The third age is “the Lover with a woeful ballad”, tackling the big organizational problems and confronting the difficulties of creating a trustworthy team. The fourth stage is “the bearded soldier”, hardened by the battles he fought, and comfortable with his role and with the young and promising competition. The fifth stage is “the general, full of wise saws”, a narcissistic stage accompanied by the danger of losing contact with reality in the light of his own achievements. The sixth stage, “the statesman with spectacles on nose” describes the years in which the leader’s power begins to wane, and the leader prepares to pass his or her wisdom in the interest of organization. Finally, the seventh age, “The Sage or the second childishness” is the stage of mentoring, when peering with young executives creates profound benefits, and when each experience is devoured and enjoyed, without the useless ambitions of the earlier ages.

Barbuto et al. (2007) identified a clear connection between age and leadership styles. For examples, younger leaders (22-35 and 36-45 years of age) were rated as more transactional and older leaders (over 46 years of age) were rated as more transformational. The main characteristics of transformational styles analyzed were: idealized influence, intellectual stimulation, individualized consideration and effectiveness. Considering that the leadership literature favours the transformational style and envisions a future dominated by this kind of leadership, it is possible that the “job specifications” for leaders to include more senior traits.

Bass and Bass (2008) reviewed of the literature between 1904 and 1970 found that connections between age and leadership differ in various situations. For example, in a highly organized institution like Roman Catholic church, rank was determined by age, but it was lower or negative in organizations that quickly promoted their “best and bright” (Bass and Bass, 2008, p.82). Also he made a distinction between chronological age and mental age, underlining that usually the people with mature mental age have more chances to lead. But even if “usually great men tend to exhibit signs of outstanding accomplishments at a relatively early age... it usually takes time to rise to the top in a corporate or governmental structure” (Bass and Bass, 2008, p.97-98). This view is supported by current reports analyzing the age of the formal business leaders (directors, CEO’s, board of directors). For example in European Union, the average age

for directors ranged between 62.4 in Netherlands to 54.1 in Poland, giving a European average of 58.4. This trend of employing senior directors seem to be influenced by the troubled economic times (European Corporate Governance Report, 2011). In USA, according to Spencer Stuart Board Index (2011), the average age for boards of directors is 62.4 and has an increasing trend since 2001 when the average age was 60.2. The CEO's average age also started to grow, from 55.1 in 2001 to 56.5 in 2011, a 3% increase in a 10 years interval. So, a sweet-spot age, or a cronocentric interval starts to appear when we consider formal leadership.

*Leadership is ethnocentric.* Ethnocentrism is the characteristic of a “nation, group or culture to appear to us to be normal and ordinary, while others appear foreign, strange and curious... in the ethnocentric view, the world revolves around our group, and our values and beliefs become the standard against to judge the rest of the world” (Messick and Bazerman, 1996, p.15-16). Ethnocentric thinking exaggerates the differences between “us” and “them” in order to advantage “us, to create in-group favouritism. What is even more interesting is that the leadership concept is associated by some authors with the United States and thus the ethnocentrism of leadership might turn in US-centrism. Hunt (1999, p.130) rhetorical question regarding leadership origins “Was it really, as many Europeans argued, a U.S. phenomenon, overemphasized because of our individualistic culture?” seem to point at this idea. Collinson (2011), synthesising other authors views, underline in a critical manner that the majority of leadership studies are North American in origin and much research (unconsciously) articulates (positivist) US values. It is often acknowledged that US-centrism is an assumption that North American cultural values can be transposed to leadership theory, development and practice in quite different contexts. Cross cultural analysis of leadership development programmes in USA, Europe and China, point out the disproportionate influence of US values.

A more European form of ethnocentrism is present in Iain Pears writings (1997). According to Pears, the heroic leaders are the products of national cultures and their identities are usually constructed against an imagined “other”. The leader's archetype is constructed trough mirroring contradictions of two leaders of neighbour nations: Wellington (UK) and Napoleon (France) in his study. Maybe in the same way, people need specific leadership models in order to be able to construct their own image of a leader, not necessarily as opposing ones but maybe as a point of reference in constructing identity. Considering this, archetypal national leaders and archetypal foreign leaders (neighbouring country) are important in the social construction of leadership.

### **3. Method**

At the core of this article is a written exercise embedded in a focus-group. Focus-group was used in academic and professional awareness training mainly because this method has certain sensitivity to the idea of social construction of reality and in this case helps define the borders of leadership or the biases. The focus group contained a written exercise, as suggested by Patton (2002), in order to focus participants' attention; to give them time to structure their arguments and to form a bigger picture before having group discussions. This way the spontaneous influence or the pressure of conformity in group discussions is diminished and the quality of group discussions is increasing. Information reflected upon in the written exercise was then discussed in the focus-groups as a catalyst, with the purpose of answering the research question mentioned at the beginning and develop on it: Can we find evidence of leadership biases on grounds of gender (androcentrism), ethnicity (ethnocentrism) and age (cronocentrism)?

The written exercise contained two tasks: The first one was: “Name three business leaders that inspire you”, with a time limit of one minute, and it was intended to eliminate spontaneous influence, peer pressure and to reveal the leadership “icons” that inspires participants, or the leadership “biases”. The second one was: “Name as many business leadership traits as you can”, with a time limit of ten minutes, and it was intended to stimulate the quality of group discussions and to allow collection of redundant information. This paper is centered on the first task, the second one being the resource for a future article. This written exercise, as already mentioned was inspired by Banaji, Bazerman and Chugh, (2003), but also by the “audit tests” used by sociologists to investigate discriminatory practices in human resource recruiting (Bendick and Romero, 1996; Bendick, Brown and Wall, 1999; Riach and Rich, 2002, 2006, 2007a, 2007b; Wilson, Parker and Kan, 2007; Bennington, 2002). The audit tests consisted in sending fake peered actors (or their CV's) to job opening. The actors had a similar professional background, but they were demographically different - one person was from the majority group and other person from the minority group studied. Translating this idea to our paper, in the same way as the recruiters discriminate on age when shortlisting candidates, students will reveal their biases regarding leadership when forced to shortlist their leaders. The difference is that now, the “leadership candidates” or “inspirational models”

are their own spontaneous initiative, and the choices they made reflect hidden assumptions. Another methodological inspiration for this exercise was Palmore's (2001, 2004) "Age Quiz", an instrument developed in incremental steps starting with 1977, containing a set of questions with true or false options, probing the degree of age discrimination, both positive and negative. As in this case, the quiz had a multi-purpose: to facilitate discussions about age discrimination, to underline age biases, to measure group differences, to see the literacy level for this topic and so on. The discussions in the focus group, following the written exercise, were centered on specific trend identification (gender, age and nationality), causality (reasons behind their choices) and effects (at personal and social level).

The social unit studied in this paper included freshmen students at the Faculty of Business, Babeş-Bolyai University, Cluj-Napoca, Romania. This is a purposive sampling because probing the students in Business Administration we can obtain a better picture about the leadership models that inspire a specific group, of interest for us. Also, the results of the paper can be used for educational purposes, to generate interest and awareness on the topic of leadership unconscious biases. Students are more receptive to relevant studies that involve them directly, than to general studies disconnected from their academic and professional experience. Because they will be active social actors in the business environment, the awareness component of the study help the future decisions to be less biased.

The research was carried on in October 2011 during the leadership seminars. There were a number of 15 focus-groups organized, involving between 10 and 15 students. The total number of students involved was 178; 87 of them males with an average age of 20 years and 91 females with an average age of 19.4 years. The majority of them were Cluj-Napoca residents (59 students), and the rest of them came from various locations: Satu-Mare (8 students), Turda (7 students), Suceava (7 students), Dej (6 students), Zalau (5 students), Sibiu (5 students) and so on.

#### **4. Findings**

*4.1. Let's talk about gender.* It doesn't seem in this case to be enough women leader icons, to reach a critical mass. The percentage of female leaders that inspire participants (7% or 33 cases) is very low compared with the male leaders (93% or 458 cases) (Figure 1). Considering that tokenism starts to manifest itself below 15% representation of the minority group, we might say that the problems associated with tokenism are still present when we talk about gender and leadership.

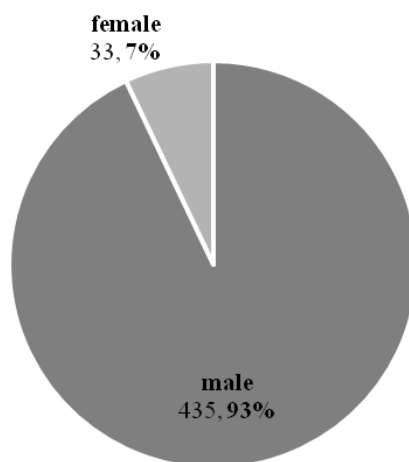
The classical reasons for this underrepresentation mentioned by the focus-groups participants were: the family life and the maternity leaves put women off the track, and this implicitly means less experience; the lack of aggressiveness or competitiveness; too much emotional input weakens credibility; women lack cohesiveness, and often manifest unfavourable towards their own kind. What was striking during the discussions was that, when students were asked about the causes for the gender bias in leadership, the starting interventions and arguments were given by male students, not by female. It seems like a polite thing to do, to help the other gender; or as a student female noticed, "maybe is the guilt talk".

Is there a "stereotype tax" associated with this kind of leadership bias? Is someone paying for this kind of biases? Participants considered that for specific businesses, this "stereotype tax" is small and often is not perceived because "the businesses produce money and people make a profit, and this reality of leadership is satisfying enough". It doesn't really hurt financially if you are gender biased and those studies underlying the performance of businesses with female leadership have only academic notoriety, not a professional notoriety. When the discussion reached a bigger level, the social one, everyone agreed that considering the human resources of a society, this generalize behaviour, would have a devastating impact. The grades of female students are noticeably higher than those of male students, their involvement in extracurricular and voluntary activities outstanding, their communication and persuasion skills impressive and still, once they leave the universities and boldly go on the labour market, their career encounter adversities. This adversities look at beginning as labyrinth (Eagly and Carli, 2007) and then, in the final stage, as a cynical glass ceiling (Bass and Avolio, 1994). From the human capital standpoint and regarding the efficiency principles of recruiting, a huge source of potential leaders are ignored or underutilized, almost 50%.

An interesting emotional marker was the reaction of the participants at the first two question of the focus-group, after the written exercise has ended. The first one was: "How many of you mentioned three men business leaders?" Almost 99% of the participants raised their hands. The second question was: "How many of you mentioned three women business leaders?" No one raised hands – the 1% remained didn't react to the question. If uproar started in the room at the first question, an explosion of laughter accompanied the last question. One student intervened with a witty remark "Huston, we have a problem!", and the participants exploded in a second round of laughter. This episode reminded us of

Jaggar (1989), a fervent feminist author, and her concept of “out-law emotions”. These are emotional reactions banned by the social conventions in certain situations like those when people of colour are expected to laugh at a racist joke rather than be angry, or a female subject to a man sexual banter is expected to be flattered rather than uncomfortable. For them, it is expected to present a social facade and not suggest that they are “emotionally disturbed” by generalized androcentrism.

**Figure 1: Number/percentage of male and female leaders named by participants**



Finally, we have to notice that the most mentioned name of a woman business leader is that of Oprah Winfrey (entertainment industry), with 24 mentions, and second, the name of a Romanian woman business leader, Camelia Şucu (furniture industry), with only 3 mentions. When this aspect was discussed in the focus-group, the main reason advanced by the participants was the unique position Oprah Winfrey have in terms of visibility, due to the industry she is working in. Considering this, it might be possible that some cases with extreme visibility compensate the effects of tokenism. Also, as we expected, the majority of the students mentioning a woman as an inspiring business leaders, were women. So, who were the other women business leaders mentioned? They were: Coco Chanel (fashion) and Valerie Massey (IT).

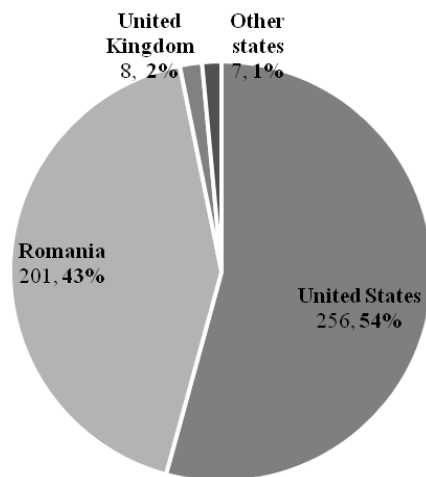
*4.2. Ethnocentrism or US-centrism: that is the question?* There are no examples of leaders from our neighbour countries to mirror the national identity of Romanian Business leaders; the vast majority consists in examples from United States (Figure 2). So Pears’s (1997) central idea might be right but without the proximity factor. Our identity is socially constructed, but without mirroring another neighbouring European culture and the leadership archetype associated with it, but a “Far and Away” one, one with enough mythical potency to fascinate us. Maybe we do not have the “us” and “them” dimensions of ethnocentrism, but we have “us like them” dimension of US-centrism.

US-centrism of leadership is unexpectedly high in this case, higher than the ethnocentrism, or the local models. Why? One of the proposed reasons in the focus-groups is that the mass-media industry promotes certain heroic business leaders, the kind of leaders that generate audience. Another is the fact that the literature in this field has its origins in US and basically, leadership being a new and hot topic, introduced in a post-communist Romania, the main literature served in the academic and professional circles was made in North American. After the revolution, lacking a better model we used the first coherent one we encountered. The third reason proposed by the participants is the “evangelical” influence the big American corporation (Coca-Cola, Emerson, Kraft Foods, Ford, Amway, Bechtell, Colgate, McDonalds, and so on) have in the countries where they externalize some of their work.

Another theoretical lens useful in the interpretation of this finding is the globalization framework. “As companies become exposed to global markets, however, national leadership models no longer work as well” (Morrison, 2000, p.120). Basically globalization involves cross cultural models that work in a global environment and often, global leadership is quite different from domestic leadership. In this case, the globalization is not a cross cultural model but a bicultural one, American-Romanian. In Morrisons’ (2000) opinion, European, Asian and Latin American leadership models are quite different from the US

approach, and we agree with that, but the strange thing for us is that we are a European Country, yearning for European Integration, but with US ambitions and values of leadership.

**Figure 2: Number/percentage of leaders from different nationalities named by participants**



An interesting idea came from a participant, suggesting that maybe there are certain similar cultural dimensions between Romania and United States. As a result we tried to compare the four classical cultural dimensions identified by Hofstede (1983) to see if there are similarities, using the author's online comparison tool (<http://geert-hofstede.com>). On the "power distance dimension" (PDI), Romania, with 90 points qualifies as in favour of a highly hierarchical order without needing justification, while U.S. score was 40, favouring "liberty and justice for all". On the "individualism dimension" (IDV), the Romanian score is 30 and the U.S. score is 91, suggesting that Romania is a "collective" society and U.S. an individualistic society. On the "masculine/feminine dimension" (MAS), the score for Romania is 42 and for U.S. 62, suggesting that Romania is a "relatively feminine society" and US a "relative masculine society". On the "uncertainty avoidance dimension" Romanian score was 90 and U.S. score was 46, suggesting that Romania have a high preference for avoiding uncertainty and US "accepts uncertainty". The result is not a surprise. There are no cultural similarities, on the contrary; it is like the reverse image of cultural dimensions. This result sends us back at the Pears (1997) and his bipolar model of leadership, and provides even more arguments for wishful thinking, when it comes to leadership models, and not for antithetic thinking.

Considering the names of the US leaders, we notice that the majority of answers target IT industry, namely Steve Jobs and Bill Gates, considered to be "alter egos" of the same person. Unfortunately Steve Jobs deceased on October 2011, and the focus-groups started the next week, so the publicity associated with his death might influenced the final result.

*4.3. How old are the "inspirational" leaders?* The average age of the "inspirational" leaders was 58,7 years with a maximum age of 86 years (Ingvar Kampard) and a minimum age of 28 years (Mark Zuckerberg). Considering the gender of the leaders, the average age of the women was 52,8 years and for men the average age was 59,1 years. It is noticeably that the women leaders have a lower age threshold. So is this a problem? The majority of the participants considered that in order to be successful and have a positive and conscious effect on other people you have to have a certain experience and implicitly a certain age (see Table 1.). This is strange coming from a group of young people, discussing the idea of leadership in a time of hyper-change. Their intergenerational politeness manifested here was surprising. In some authors' view, even the generation X, those born between 1961 and 1981 were a rebellious generation (Erickson, 2010), rejecting conventional leadership norms. Why does the current generation, multitasking, connected, gadget addicts, basically the "digital natives" (Selwyn, 2009) seem so attached of classical leadership, and their heroic mythical leaders? We would expect a greater diversity of examples, especially in terms of age, and a more postmodern and unconventional approach to leadership.

**Table 1: Most frequently mentioned leaders and their age**

Most fervently mentioned United States leaders			Most fervently mentioned Romanian leaders			Most fervently mentioned leaders from other countries		
Name	No.	Age	Name	No.	Age	Name	No.	Age
Steve Jobs	72	56	Ion Țiriac	76	73	Sir Richard Branson (UK)	3	62
Bill Gates	65	57	Dinu Patriciu	47	62	Karl Lagerfeld (UK)	2	79
<i>Henry Ford</i>	25	84	Ilie Nastase	13	66	<i>Coco Chanell (FR)</i>	2	88
Oprah Winfrey	24	57	George Becali	12	54	Vidal Sasson (UK)	1	84
Walt Disney	19	65	George Copos	5	59	Sir Allan Sugar (UK)	1	65
Donald Trump	17	66	Dan Pascariu	4	62	Jamie Oliver (UK)	1	37
Mark Zuckerberg	6	28	Camelia Șucu	3	41	Florentino Perez (ES)	1	65
<i>John Rockefeller</i>	4	98	Arpad Pascany	3	41	Ratan Tata (IN)	1	73
Serghei Brin & Larry Page	4	39	Cristi Borcea	3	42	Andrea Tomat (DE)	1	55
Robert Kiyosaki	4	65	Irinel Columbeanu	3	54	Ingvar Kampard (SE)	1	86

*Note: In the case of Henry Ford, John Rockefeller and Coco Chanell we looked at the age of their deaths.*

This attitude of the participants is in congruence with the ideas of Bennis (2004), that we have certain developing leadership ages. According to these article findings, the perfect age to be a leader that inspires young students it is around the age of 58, and we can identify it with “the general, full of wise saws” or with the “statesman with spectacles on the nose”. On age, some authors consider that athletes and creative thinkers start earlier, but in order to reach leadership and eminence, one must wait “not upon the insight of the leader himself, but upon the insight of society about him” Lehman (1962, p.142). The same idea occurred during focus-group discussions, participants considering that in order to have a Leader we need layers of time and experience to sediment, and to be visible enough in order for that person to grow from an efficient leader to an icon status. The focus-group discussions reminded us of the of constructionist classical view that „layers of interpretation deposit over layers of interpretation just like layers of minerals do... the problem is no longer that of existential interaction with the world, but that of building upon existent theoretical deposits” (Berger and Luckman, 1999, p.82). So maybe the age bias in leadership is a social construct consisting in layers over layers of interpretation, and if we look at the process, we see that this topic gradually leaves the realms of existential interaction with the world and enters a theoretical and mythical realm, enhanced by various social actors (academics, leaders, politicians, mass-media etc.) and by time.

## 5. Conclusions

We found certain evidence of leadership biases on on grounds of gender (androcentrism), ethnicity (ethnocentrism) and age (cronocentrism), and the evidence is overwhelming in the studied social unit. The one “minute-split decision” revealed that all the biases anticipated and described in the review of the literature were present in the audit exercise, and we have a triple jeopardy that affects leadership construct. Let us look at the problem from the human resource point of view - leadership recruiting and development - and consider the “stereotype tax” paid by organizations. If from the total pool of “candidate leaders” we are looking for male leaders, we lose almost 50% from the potential candidates on the market. Going further, if we are looking for certain values specific to certain cultures, nationalities or races, then we lose maybe another 10% and we remain with 40%. Finally if we limit our searches to a certain chronocentrism interval (45-65 years for example), we cut another let’s say 20% and we remain with only 20% from the original pool. So, what is the probability for a successful recruiting? These biases are bugs in the system and have to be removed in order to increase performance of the human capital. The lack of diversity in leadership, as a social construct, undermines a healthy, sustainable business system. These biases might be originated in the unconscious unethical choices of the participants, but at the roots of these leadership icons is a powerful and ubiquitous process of social construction. In the age of globalization and postmodernism we expected a more creative and vast range of business leaders examples.

This paper motivates further research. From a conceptual perspective we have the impression that the majority of the participants gave examples of rich business people and not necessarily business leaders, and this confusion needs future investigation. Considering the sample representativeness, this study stands to be an exploratory one, and can be upgraded to a research that has national representativeness. From an instrumental point of view, the results of the paper can constitute the base for an instrument

development, a kind of “Leadership Biases - Self Awareness Quiz”, very useful for educational purposes in academic environment and for training and evaluation purposes in organizational environment.

## 6. References

- Banaji, M.R.; Bazerman, M.H. and Chugh, D. (2003). How (Un)Ethical Are You, *Harvard Business Review*, 81 (12). P. 56-64.
- Barbuto, J.E; Matkin, G.S.; Fritz, S. And Marx, D.B. (2007). Effects of Gender, Education, and Age upon Leaders' Use of Influence Tactics and Full Range Leadership Behaviors, Sex Roles, 56(2007), pp.71-83.
- Bass, B.M. and Avolio, B.J. (1994). Shatter the glass ceiling: woman may make better managers, *Human Resource Management*, 33(4), pp.549-60.
- Bass, B.M. and Bass, R. (2008). *The Bass Handbook of Leadership: Theory, Research, and Managerial Applications*, Free Press.
- Bendick Jr.M., Brown E.L.& Wall K. (1999). No Foot in the Door: An Experimental Study of Employment Discrimination Against Older Workers. *Journal of Aging & Social Policy*, 10 (4), pp. 5-23.
- Bendick Jr.M., Jackson W.C. & Romero J.H. (1996). Employment Discrimination Against Older Workers: An Experimental Study of Hiring Practices. *Journal of Aging & Social Policy*, 8(4), pp. 25-46.
- Bennington, L. (2002). Age Discrimination: Converging Evidence from Four Australian Studies. *Employee Responsibilities and Rights Journal*, 13(3). Plenum Publishing Corporation
- Bennis, W.G. (2004). The Seven Ages of Leadership, *Harvard Business Review*, 82 (1), pp.46-53.
- Berger, P.L. and Luckmann, T. (1999). *Construirea socială a realității*, București: Editura Univers.
- Collinson, D (2011). Critical Leadership Studies, chapter in Bryman, A., Jackson, B., Collinson, D., Grint, K., and Uhl-Bien, M., (eds). *The Sage Handbook of Leadership*, Sage Publications Ltd., pp. 181-194
- Davies, De B. and West-Burnham, J. (2003). *Handbook of Educational Leadership and Management*, Pearson Education
- De Vries, K.. (1997). The LeadershipMystique, in Grint, K. (Ed), *Leadership: Classical, Contemporary, and Critical Approaches*, (pp. 250-271), [Oxford](#) University Press.
- De Vries, K.. (2005). Dangers of Feeling Like a Fake, *Harvard Business Review*, 83(9), pp.108-116
- Eagly, A.H and Carli, L.L. (2007). Women and the Labyrinth of Leadership, *Harvard Business Review*, 85(9), pp.62-71
- Eagly, A.H. and Johannesen-Schmidt, M.C. (2001). The Leadership Style of Woman and Men, *Journal of Social Issue*, 57(4), pp.781-797.
- Erickson, T.J. (2010). The Leaders We Need Now, *Harvard Business Review*, 88(5), pp.62-67.
- European Corporate Governance Report (2011), Heidrick & Struggles, retrieved from [http://www.heidrick.com/PublicationsReports/PublicationsReports/HS\\_EuropeanCorpGovRpt2011.pdf](http://www.heidrick.com/PublicationsReports/PublicationsReports/HS_EuropeanCorpGovRpt2011.pdf)
- Foschi, M., (1998). Double Standards in the Evaluation of Men and Women, *Social Psychology Quarterly*, Vol.59(3), pp. 237-254.
- Gardiner, M. and Tiggemann, M. (1999). Gender differences in leadership style, job stress and mental health in male - and female - dominated industries, *Journal of Occupational and Organizational Psychology*, 72, pp.301-315.
- Gemmil, G. And Oakley, J. (1997). Leadership: An Alienating Social Myth, in Grint, K. (Ed), *Leadership: Classical, Contemporary, and Critical Approaches*, (pp. 231-249), [Oxford](#) University Press.
- Granleese, J., and Sayer, G. (2006). Gendered ageism and “lookism”: a triple jeopardy for female academics, *Women in Management Review*, 21(6), pp.500-517.
- Greenwald, A.G. and Banaji, M.R. (1995). Implicit Social Cognition: Attitudes, Self-Esteem, and Stereotypes, *Psychological Review*, 102 (1), pp. 4-27.



- Hewlett, S.A. (2002). Executive Women and the Myth of Having It All, *Harvard Business Review*, 80(4), pp.66-73
- Hewlett, S.A. (2002). Executive Women and the Myth of Having It All, *Harvard Business Review*, 80(4), pp.66-73.
- Hewlett, S.A., and Luce, C.B. (2005). Off-Ramps and On-Ramps: Keeping talented Women on the Road to Success, *Harvard Business Review*, 83(3), pp.43-54
- Hofstede, G. (1983). National Cultures in Four Dimensions. A research-based Theory of Cultural Differences among Nations. *International Studies of Man & Organizations*, 8(1-2), pp.46-74.
- Hunt, J.G. (1999) Transformational/charismatic leadership's transformation of the field: an historical essay, *Leadership Quarterly*, 10(2), pp. 129-144.
- Ibarra, H. And Obodaru, O. (2009). Women and the Vision Thing, *Harvard Business Review*, 87(1), pp.62-70
- Jaggar, A.M. (1996). Love and Knowledge: Emotions in Feminist Epistemology. In Garry A. & Pearsall, M. (eds) *Women, Knowledge, Reality*, 2nd edition, Routledge, 166-190.
- Kellermen, B. (2004). Leadership Warts and All, *Harvard Business Review*, 82(1), pp.40-45
- Lehman, H.C. (1962). More About Age and Achievement. *The Gerontologist*, 2(3), pp.141-148.
- Messick, D.M. and Bazerman, M.H. (1996). Ethical leadership and Psychology of Decision Making, *Sloan Management Review*, 37(2), pp. 9-22.
- Morrison, A.J. (2000). Developing a Global Leadership Model, *Human Resource Management*, pp.117-131.
- Palmore, E.B. (2001). The Ageism Survey: First Findings. *The Gerontologist*, 41(5), Academic Reserch Library, pp.572-575.
- Palmore, E.B. (2004). Research Note: Ageism in Canada and the United States. *Journal of Cross-Cultural Gerontology*, 19, Kluwer Academy Publishers, pp.41-46.
- Panayiotou, A. (2010). Macho managers and organizational heroes: competing masculinities in popular films. *Organization*, 17 (6), Sage Publication, pp.658-683.
- Patton, M.Q. (2002). *Qualitative Research & Evaluation Methods*.3rd edition, Sage Publications.
- Pears, I. (1997). The Gentleman and the Hero, in Grint, K. (Ed), *Leadership: Classical, Contemporary, and Critical Approaches*, (pp. 231-249),[Oxford](#) University Press.
- Pears, I. (1997). The Gentleman and the Hero: Wellington and Napoleon in the Nineteenth Century, in Grint, K. (Ed), *Leadership: Classical, Contemporary, and Critical Approaches*, (pp. 250-271),[Oxford](#) University Press.
- Peters, T. (2006). *Re-imagine: Business excellence in a disruptive age*, DK Adult.
- Riach P.A. and Rich J. (2002). Fields Experiments of Discrimination in the Market Place, in *The Economic Journal*, Royal Economic Society, pp. 480-518.
- Riach P.A. and Rich J. (2006). *An Experimental Investigation of Age Discrimination in the French Labour Market*, Discussion Paper Series, Institute for the Study of Labour IZA.
- Riach P.A. and Rich J. (2007a). *An Experimental Investigation of Age Discrimination in the English Labour Market*, Discussion Paper Series, Institute for the Study of Labour IZA.
- Riach P.A. and Rich J. (2007b). *An Experimental Investigation of Age Discrimination in the Spanish Labour Market*, Discussion Paper Series, Institute for the Study of Labour IZA.
- Rooke, D. And Torbert, W.R. (2005). Seven Transformations of Leadership, *Harvard Business Review*, ..., pp. ...
- Rosener, J. (1997). Sexual Static, in Grint, K. (Ed), *Leadership: Classical, Contemporary, and Critical Approaches*, (pp. 211-230),[Oxford](#) University Press.
- Rudman, L.A.; Greenwald, A.G.; Mellott, D.S; Schwartz, J.L.K. (1999). Measuring the Automatic Components of Prejudice: Flexibility and Generality of the Implicit Association Test. *Social Cognition*, 17(4), pp.437-465.
- Selwyn, N. (2009). The digital native – myth and reality, *Aslib Proceedings: New Information Perspectives*, 61(4), pp. 364-379
- Spencer Stewart Board Index (2011), retrieved from [http://content.spencerstuart.com/sswebsite/pdf/lib/SSBI\\_2011\\_final.pdf](http://content.spencerstuart.com/sswebsite/pdf/lib/SSBI_2011_final.pdf)
- Torchia, M., Calabro, A. and Huse, M. (2011). Women Directors on Corporate Boards: From Tokenism to Critical Mass, *Journal of Business Ethics*, 102, pp.299-317

- Wilson, M., Parker, P. and Kan, J. (2007). Age biases in employment: Impact of talent shortage and age on hiring. *Business Review*, 9(1), University of Auckland
- Yoder, J.D. (1991). Rethinking Tokenism: Looking Beyond Numbers, *Gender & Society*, 5(2), pp.178-192.
- Zaleznik, A. (1977). Managers and Leaders: Are They Different? *Harvard Business Review*, 82(1), pp.74-81.
- Zimmer, L. (1988). Tokenism and Women in the Workplace: The Limits of Gender-Neutral Theory, *Social Problems*, 35(1), pp.64-71.

# GENDER ISSUES IN WORKPLACE VIOLENCE

STĂICULESCU Ana Rodica,

Professor PhD, Faculty of Law and Administrative Sciences, „Ovidius” University of Constanța, and the  
Doctoral School of Sociology, Bucharest University, Romania, staicul@univ-ovidius.ro;

STAN Alina, MA student, „Ovidius” University, Constanța, Romania, costiana\_stan@yahoo.com

**Abstract:** *This paper is a response to the problem of workplace gender violence and the power relationships between males and females in organizational theory. Victimization based on gender is afflicting society as a whole, but is also relevant to the construction of social attitudes at the workplace. Thus, we will present how the context of work relationships can be affected by acts of verbal and physical intimidation engaged by gender inequality and what are the consequences for managers. Moreover, we will focus on the legal determinations of gender based workplace violence, since it has a polymorph nature, and not all its forms are as visible to the public eye as are the incidents where persons are abused, threatened or assaulted.*

**Key words:** organizational effects of bullying, gender violence, management perspective

**JEL classification:** L2 - Firm Objectives, Organization, and Behavior

## 1. Introduction

In this article, we will examine the growing form of stress factors in organizational environment, more specifically the emergence of workplace violence. We will begin by presenting the way in which the Romanian society is aware of this rising problem by reviewing what is currently known about bullying, with a particular focus on public servants' behavior, and what are the conceptual premises mentioned in the significant literature on aggression, bullying and conflict management in organizations (Weiss, 2011).

The arguments and conclusions presented here are according to those of well known authors like Wilhelm Heitmeyer, Vittorio di Martino and Peter Randall. Our study tries to focus on the practical approach of workplace unacceptable behavior in the Romanian public service, after the institutional reform, in 2010. There are many forms of uncivil behavior where gender identity is relevant for perpetrators and victims (i.e. victimization, bullying, mobbing, sexual harassment), especially in gendered organizations (Zippel, 2006). Many of these forms of relational aggression are insidious, being invisible in the public, because victims are less likely to report and file a complaint against their colleagues or superiors when the actions can be interpreted as being not so drastic to be called harassment. Although previous international studies have addressed this problem, the relevance of gender issues in the context of workplace violence is not largely discussed by social actors and influential circles (Vittorio di Martino, 2005).

## 2. Key concepts: “unacceptable” behavior in the hierarchy of power

The Romanian public sector is a gendered institution, where gender identity plays a crucial role in the hierarchy of power, according to Acher's definition for gendered organizations: *“means that advantage and disadvantage, exploitation and control, action and emotion, meaning and identity, are patterned through and in terms of a distinction between male and female, masculine and feminine. Gender is not an addition to ongoing processes, conceived as gender neutral. Rather, it is an integral part of those processes, which cannot be properly understood without an analysis of gender”* (Archer, 1990).

From central administration, public forces and City Hall, men are more successful than women, as the internal guidelines for recruitment and advancement tend to advantage them. A recent study conducted in local administration institution showed that more than a half of respondents believe that is easier for men to succeed in public sector (Creta, Macarie, Sandor, 2011).

In this paper, the term “public service” refers to all public employees, while “civil service” is limited to the government employees who are appointed on the basis of the examination given by the civil service commission and who acquire civil service status after a probationary period. The Romanian Public Administration needs several transformations in order to become more efficient, competent, self-confident and in order to earn the confidence and the respect of the political class. As the Code of Conduct stress, civil servants should become “self-confident, highly competent, knowledgeable,

dedicated and result-oriented professionals that normally enjoy the respect of the political class regardless of the regime type”( Art.3 and 12 on the Code of Conduct for the Civil Servants published in the Official Journal of Romania, Part I, no 157 from 23rd of February 2004).

This analysis suggests that the economic crisis can affect the way in which the employees in public administration perceive the reduction of wages and the risk of being fired. These concerns and the growing competition between colleagues have affected the work motivation. In addition, the constant changes, reorganizations, recruitment of new managers in the public sector have created a crisis of legitimacy, as older and more competent civil servants find themselves subordinated due to politically appointed decisional factors. This void of authority is, in some cases, the main factor of unhealthy work relations.

In Romania, the present status of the civil service is the product of various changes resulting not only from the need to strengthen its capacity for the efficient and effective performance of governmental functions, but also from the seeming need to respond to the dynamic nature of the country's political, social and economic developments. The toxic climate marked by lack of collegiality creates the growing needs a new leadership. The implementation of internal codes of practice that prohibit corruption, the lack of collegiality, authority abuse, and disrespect can help rebuild the peaceful work environment.

Often, critics argue that the research on violent interpersonal acts at work must be focused on the multifaceted forms that aggression can take, such as ridicule, intimidation and exclusion, and not on the prevalence of variables that focuses predominately on the victims of this acts. By examining the first aspect, we must provide arguments supporting the idea that workplace violence has similar effects on men and women alike, and the harassing process is more relevant than its causes and results. Both individuals and their social counterparts derive their identities from the roles they play in society, the groups they belong to and their personal characteristics. Henceforth, gender and sexuality are strongly connected to the understanding of identity, as they represent a connecting point between body, self-identity and social norms (Leonte, Macarov, Buzarna-Tihenea, 2011). Gender categories and roles are, therefore, associated with stereotypical feminine and masculine traits (i.e. masculinities and femininities). Nevertheless, since identities are flexible and multidimensional, masculine and feminine identities are not fixed but fluid, i.e. they are constantly changing. As a male, he is constantly observing his environment and perceiving indications (symbols and signs) about the degree of his masculinity being manifest in the context. Such manifestations occur in his own behaviour (which is constantly being produced and which has meaning for him and for others in the respective context) as well as in the behaviour of others (Stets, Burke, 2009). From this point of view, the veracity of Robert Nye's statement made in his investigation of gender roles and sexuality is particularly prominent: "gender makes a social virtue out of the necessity of biological sex, policing the limits of what is sexually allowed and dictating the norms related to gender roles and to the sexual aim and object. The expectations related to gender identity standards influence (the characters') patterns of behaviour and interactions" (Nye, 2009).

As already stated, gender stereotypes of most societies have imposed what is valued and allowed in the area of sexual identity and behaviour within binary male and female orders that have reproduced themselves as systems of male dominance. Storr's belief according to which male sexuality bears the markers of aggression while the female is seen as passive and submissive:" Male sexuality, because of the primitive necessity of pursuit and penetration, does contain an important element of aggressiveness; an element which is both recognised and responded to by the female who yields and submits" ( Storr, 1970).

Simone de Beauvoir's ideas about the objectification of women, ideas according to which "along with the ethical urge of each individual to affirm his subjective existence, there is also the temptation to forgo liberty and become a thing." The ideas expressed by Stets who, in his analysis of the interconnections between gender role identities and person identities, relates the masculine gender role identity to the mastery person identity, by means of their shared meaning of "control". Meanings of masculinity, such as dominance and competitiveness, are compatible with meanings of mastery that involve control over one's living environment. When the social psychologist examined the predictors of control over one's partner, she discovered that those possessing a more masculine gender identity were more susceptible to control their partners than those possessing a feminine gender identity (Simone de Beauvoir, 1988).

Sexuality and sexual identities, as social and political constructs, are politically relevant as they are constituted within the fields of power; seen as the outcome of individual as well as collective formation processes which, in turn, are connected to relations of power, sexual identities and sexuality reflect the changes in government, citizenship and social contexts( Carver, Mottier, 1998).

### 3. The gendered nature of workplace violence in Romanian public sector

In our approach, we will address the theoretical idea based on the assumption that workplace violence is an abuse of power over both the victim and the bystanders who witness this abuse. There are some terms that must be defined for further understanding. Aggressive behavior in public administration, scandals of sexual harassment in the military and entertainment industry mainstreamed concepts such as *mobbing*, *bullying*, *violence*. Therefore, in most languages, there are phrases which now define the aggressive behavior in organizations (e.g. in French *harcèlement moral*). This diversity of terms can easily lead to confusion (Einarsen, Hoel, Zapf & Cooper, 2003).

The blurred line between concepts exists because of the large number of terms used in this area: *aggression*, *violence*, negative behavior, relational violence and *deviant* behavior (Vittorio di Martino, 2005). The World Health Organization defines *violence* as follows: "The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community that either results in, or has a high likelihood of, resulting in injury, death, psychological harm, mal-development, or deprivation"( World Health Organization, 1996). Similarly, the European Commission has defined workplace violence as involving "incidents where persons are abused, threatened or assaulted in circumstances related to their work, involving an explicit or implicit challenge to their safety, well-being or health"(European framework agreement on harassment and violence at work, 2007).

This is a very broad, general definition that covers a wide range of potential actions. Its advantage is its breadth; however, it does not give us very precise indications of the types of behaviors that would qualify as violence under this definition. Nor does it clearly indicate what might be meant by an "implicit challenge" to people's sense of safety or well-being.

This definition spells out some of the specific behaviors that qualify as workplace violence. Being defined as actions that deliberately induce physical or psychical discomfort for those who are subject to aggression, aggressive behaviors are either express, explicit by the traces they leave, (e.g. bruises, abrasions)like assault, sexual assault, or hidden, implicit, insidious and imperceptible like the use of threats, intimidation(Strandmark, 2007).In empirical studies the specialist include in surveys or checklists examples like being yelled at, the use of derogatory names, the "silent treatment," having key areas of responsibility removed or replaced with more trivial or unpleasant tasks, spreading of gossip and rumors, making insulting or offensive remarks made about one's person (i.e. habits and background), one's attitudes or private life, being given hints or signals from others that they should quit your job, repeated reminders of one's errors or mistakes, making persistent criticism of one's work and effort, being given tasks with unreasonable or impossible targets or deadlines. (General Social Survey on Victimization)

In addition, it refers to factors that will affect the work environment, including verbal and/or psychological threats and harassment. These types of actions, as well as other means of intimidating and controlling people, are the kinds of behaviors that are often described as bullying or mobbing.

Of all the types of bullying discussed in the literature (e.g. Einarsen, Hoel, Zapf & Cooper, 2003), the behaviors most frequently cited in public services involve threats to professional status and isolation and obstructive behavior (i.e., threatening the target's ability to obtain important objectives). The long time effects of this destructive organizational behavior was the object of multiple studies including extensive interviews and personal accounts from targets (e.g.,Radall, 1997; Westhues, 2004). From this previous research, we find out that the consequences of bullying can be quite damaging to individuals (physical, psychological and emotional damage), groups (destructive political behavior, lack of cooperation and interpersonal aggression) and organizations (organizational withdrawal behaviors, theft, lowered organizational commitment and sabotage). This diversity of forms of violence is the construct of the social dimension. The term "violence" has several meanings and can describe verbal and non-verbal communication, physical violence, and relational violence, individual and group aggression.

For more specific types of workplace violence, like sexual harassment, the process of codification has strong echoes, mostly due to feminist movements. International organizations, but also international institutions, such as OSCE, WHO, International Labour Organization, European Commission, the European Agency for Safety and Health at Work (EU-OSHA) and the Special UNO Rapporteur for forms of violence against women contributed in collective efforts to put and end to gender violence at the workplace.

Inappropriate behavior on rationale of gender takes a more indirect form in public sector. Due to specific legal constraints, it becomes a form of interpersonal aggression, which is also prohibited by internal regulations and labor law, but is more difficult to prove and is generally not perceived as a crime. The victimization of public servants is also affected by early socialization and the acceptance of gender

stereotypes like “boys will be boys. Nevertheless, important social factors that can fuel this behavior such as: the organizational culture, the work climate, values of employees, individuals and work practices (e.g. the lack of a clear internal code of conduct that forbidden inappropriate and aggressive behavior) (Acker, Joan, 1990).

There are a great number of studies revealing that both men and women experience different kinds of wrongful treatment at work, women being more likely to suffer from both relational aggression, like mobbing and gender based violence, like sexual harassment (e.g. Shallcross, Sheehan, 2008). When stating that gender based violence at the workplace is the most common form of internal negative behavior in public administration, we must take in consideration the fact that the aggressive behavior is a controversy concept and in Romanian the jurisprudence is non existent in this manner, but studies show that 5% of women are harassed (European Agency for Safety and Health at Work).

The multifaceted forms of violence challenge not only the international response, but the implementation of long term policies that can ensure the adoption of specific legislation and proactive strategies. These difficulties are well illustrated by the regime governing women empowerment and human rights. The feminist movement claims that not enough is being done in relation to the human rights of women hence we can explain the international organizations attempts to achieve uniformity. Although still developing, gender violence is regulated in a series of international documents like: the Convention on the Elimination of all Forms of Discrimination against Women (CEDAW) or the International Covenant on Civil and Political Rights. The European institutions seek to find a common position in this field as they are concerned by the victimization of vulnerable groups and has adopted a series of documents: the Recommendation R(2002) regarding women protection against violence, the European Council Directive no 76/207/EEC on the implementation of the principle of equal treatment for men and women as regards the access to employment, vocational training and promotion, and working conditions and the Directive 2000/78/EC of 27 November 2000 establishing a general framework for equal treatment in employment and occupation and protection of dignity.

In order to describe the forms of aggression at workplace, we must establish its rationale, ergo the power relationships in the group, which lead to the *negative attitude or clear intention of hurting the ones who occupy a weaker position in the group*. Therefore, the specialized literature states that there are several factors that determine the character of organizational violence, more precisely: group membership, status and power (e.g., Einarsen, Hoel, Zapf & Cooper, 2003).

The existence of a national definition and legislation against violence and/or harassment can be seen to express the state of awareness of these issues at national levels. All the definitions mentioned above are ambiguous. As mentioned above the jurisprudence in this field is non-existent mostly due to the fact the internal codes of conduct (e.g. Code of Conduct for Civil Servants) offer the solution of dismissal when the employee committed a serious or repeated disciplinary offence related to the labour discipline. The discipline committees can also stop the conflict and the appeal to justice is a final solution. A principal function of the justice system is to redress the harm another's careless or intentional actions has caused. But in labor regulations, the existence of a toxic work climate can cause the victim to suffer in silence. The pain and humiliation that one can perceive is inherently subjective, so individuals cannot control certain personal factors that influence their perception. Thus, the main concerns of the feminist movement are the fact the national courts will establish *in concreto* what can or can not be considered an abusive conduct at work. If the Romanian Criminal Code does to not regulate mobbing, then the act is not considered a crime, like it is in the French law. Being considered an internal problem, when one is sanctioned a discipline committees or ethic commission establishes the facts. In the book “*Understanding workplace violence: a guide for managers and employees*“, Michele Antoinette Paludi offers a strategy for dealing with sexual harassment:

“*Avoidance*: Employee attempts to avoid the situation by staying away from the harasser;

*Assertion/Confrontation*: Employee refuses sexual or social offers or verbally confronts the harasser;

*Seeking Institutional/Organizational Relief*: Employee reports the incident and files a complaint;

*Social Support*: Employee seeks the support of others to validate perceptions of the behavior;

*Appeasement*: Employee attempts to evade the harasser without confrontation, and attempts to placate the harasser” ( Paludi (ed.), 2006).

A particular relevance to our paper is the effect of bullying among white collars, more exactly vis-à-vis job satisfaction, productivity/performance. Job satisfaction is well established as a key predictor of productivity and turnover in all employment settings (Sirota, Mischkind, & Meltzer, 2005) and can be an early warning of an invisible problem.

Due to the financial crises, the public sector faced the reduction of national expenditures that has lead to an excessive workload for a specific group of workers in certain sectors like police, health and education (while others may be relatively inactive), as it has happened in Romanian public administration. Instead of achieving the good-governance model, public servants slowed down their performance, on one hand creating unjustified delays and public reprobation, and on the other fueling negative attitudes among their peers. Furthermore, what was before considered a job for life was now threatened by the reduction of personnel and competition between employees.

The endemic rudeness and incivility of which public servants are accused by media and the public can also be unintentional, generated by the general incivility that dominates the public administration. The institutional frame of administration reform did not transform the civil service in a transparent and participatory environment; in fact it had the opposite effect, establishing a “closed” authoritarian working environment, where people work in isolation, with mutual suspicion and defensive attitudes toward peers, which can threaten their job.

Like the concept of violence at the workplace, the national legal definitions of sexual harassment is greatly influenced by the way in which individual’s conceptualized sexual harassment. In order to fairly appreciate the circumstances, situations and contexts in which they may apply we will underline the prevalence of sexual component in white collars aggressive behavior as evidences by Robert Nye’s statement on the culturally constructed sexual attitudes, which influence behaviours and social expectations: “Within any society there is a correlation between gender systems and the sexual cultures that shape the behaviour and expectations of individuals who live within them. Sexual attitudes and practices (...) are constrained by the cultural and legal barriers that have historically protected gender hierarchies, gendered work, and gendered spaces from the threat of rapid change. Sexual discourses have always possessed the power to persuade us of the possibilities of pleasure or the dangers of transgression, but historically they have followed a master script dictated by the gender arrangements of society” (Nye, 2009).

Unlike other legal systems (United States), which defined sexual harassment as strongly being linked to the oppression and violence against women, the Romanian law framed it as a form of violence against sexual autonomy: art. 223 (1) The act of harassing a person by threat or coercion in order to obtain sexual satisfaction, committed by a person abusing his/her authority or influence provided by the office held at the workplace, shall be punished by imprisonment from 3 months to 2 years or by fine. This legal framing was preserved in the recent legal reform, suggesting that the rising awareness of values infringed by these acts were not taken in consideration by the Romanian legislator. In contrast, under the Romanian law, a male supervisor who fires a subordinate because she refuses to offer sexual favors with him has committed a penal misdemeanor punished by imprisonment from 3 months to 2 years or by fine. His action is not condemned as an instance of sex discrimination and the organization, that is responsible for implementing a safe work environment, is not held responsible (Zippel, (2006).

According to the Romanian Criminal Code, sexual harassment is similar to rape and is not used to assert men’s dominance over women and women’s subservience to men. The legal provisions for rape, sexual battery, exhibitionism and sexual harassment are collected under the 8<sup>th</sup> Chapter of the Penal Code, entitled Crimes against the sexual integrity. The concept of power and authority is also crucial, but unlike the French legislator, the public initiatives of introducing an amendment on art 223 for mobbing where not successful in Romania.

In the Romanian Labor Code, article 5 provides a clear regulation of the principle of equality between employees:

“1) Within the framework of work relations, the principle of the equality of treatment for all employees and employers shall apply.

(2) Any direct or indirect discrimination against an employee, based on criteria such as sex, sexual orientation, genetic characteristics, age, national origin, race, color of the skin, ethnic origin, religion, political options, social origin, disability, family conditions or responsibilities, union membership or activity, shall be prohibited.

(3) A direct discrimination shall be represented by actions and facts of exclusion, differentiation, restriction, or preference, based on one or several of the criteria stipulated under paragraph (2), the purpose or effect of which is the failure to grant, the restriction or rejection of the recognition, use, or exercise of the rights stipulated in the labor legislation.

(4) An indirect discrimination shall be represented by actions and facts apparently based on other criteria than those stipulated under paragraph (2), but which cause the effects of a direct discrimination to take place.”

The way in which the sexual harassment is understood and addressed has important consequences for gender equality, sexuality and the workplace, yet we know very little about why and how this problem has been conceptualized differently in European countries.

A great point is made by lobbying for transforming the sexual harassment in a form of interpersonal violence, rather than a form of sexual offence. International feminist activists have promoted an analysis of sexual harassment as a form of sex discrimination. In countries like France and the United States, key social actors, including feminists' non-profit organizations, lawyers and judges mobilized for a legal reform for sexual harassment legal provisions. In their actions, they encountered very different cultural constraints and resources, traditions and institutional networks that blocked the elaboration of a core protection against these acts (Zippel, (2006).

#### 4. Conclusions

Through this paper we have tried to demonstrate that there are many types in with the complex and context-dependent the term "workplace violence" can be defined. Given the economical conditions that created a growing instability in the carrier of public servants, we must take into consideration that the fear of being let go is reiterated in the group, thus promoting exclusions and the growing recognition of differences (Zippel, (2006).

The question that puzzles the public managers is "do the dynamics of stereotyping men and women lead to workplace violence"? We think that recent studies have shown that not all work environments and scapegoating lead to an unaccepted conduct, because clear internal regulations and anti-violence provisions, the practice of managers and early intervention seem to be helpful in the defuse of dangerous situations. A focused leader should be committed to the development of knowledge and skills within his/her organization, particularly in terms of human resources coherence and technical resources. Thus, we believe that the leader must be committed in order to sustain the efforts of making clear policies and constructively manage these situations (Staiculescu, A.R., Grigorut, C., Mina, S., 2010). By taking the example of a sexualized work environment, like the one existing in many public institutions, the manager or director is responsible for introducing several strategies in order to reduce the existing aggressive acts, by choosing formal and informal mechanisms like collegial decision-making processes, the implementation of a communication protocol in order to report any incident or clear guidelines of conduct (Shallcross, Sheehan, & Ramsay, 2008).

The possible solution is different when the perpetrator is the manager, because the imbalance between victim and bully can not change without an external intervention. Thus, the parties can try to mediate and diffuse their conflicts, or take active measures at the level of the department of human resources, and, in last instance, by addressing to justice (Paludi, Nydegger, Paludi., 2006). Another solution is to resort to arbitration, or to similar bodies, such as the office of the ombudsperson or the ethical committee. These entities are independent, neutral, confidential and informal resources for the institution and have the authority to handle conflict situations through fact finding, mediation and conciliation (Randall, 1997). Nevertheless, it is critical that all institutions subdue a re-engineering process of their management systems, and restore merit, professionalism and competences, in order to become value-based and result-oriented institutions with a non-toxic work climate. In order to transform the civil service after the economical crisis, it is necessary to put an end to the destructive behaviors that flourished in this period.

#### 5. References:

- Archer, Joan, (1990). *Hierarchies, Jobs, Bodies: A Theory of Gendered Organizations*, Gender & Society 4(2), pp.: 139-58;
- Baron, S. (2001). *Violence in the workplace: A prevention and management guide for businesses*, New York: Pathfinder;
- Burke, P., Stets, J. (2009). *"Identity theory"*, Oxford University Press, New York, p.139;
- Carver, T., Mottier, V., eds. *Politics and Sexuality: Identity, Gender, Citizenship*. Routledge. 1998. p. 113;
- Commission Recommendation 92/131/EEC of 27 November 1991 on the protection of the dignity of women and men at work [Official Journal L 49 of 24.02.1992];
- Einarsen, S., Hoel, H., Zapf, D., Cooper, C. L., (2003). *The concept of bullying at work: The European tradition* in S. Einarsen, H. Hoel, D. Zapf, & C. L. Cooper (Eds.), *Bullying and*



*emotional abuse in the workplace: International perspectives in research and practice*, London: Taylor & Francis, pp. 203–218;

- European Agency for Safety and Health at Work (EU-OSHA) <http://osha.europa.eu/en/publications/reports/violence-harassment-TERO09010ENC>;
- European Agency for Safety and Health at Work (EU-OSHA) <http://osha.europa.eu/fop/romania/ro/topics/stres/harassment.html>;
- General Social Survey on Victimization - Violence Against Women national surveys on Violence Against Women <http://www.unece.org/stats/gender/vaw/surveys.html>;
- Heitmeyer, W., Hagan, J. (eds.), (2003). *International Handbook of Violence Research*, Kluwer Academic Publishers., Netherlands , pp. 885–902;
- Leonte A., Macarov L., Buzarna-Tihenea (Gălbează) A.. (2011), *Gender Roles and Sexuality in Anglo-American Fiction: Donald Barthelme, Toni Morrison and Ian McEwan*. Editura Muntenia, Constanta;
- Leymann, H., (1990). *Mobbing and Psychological Terror at Workplaces*, *Violence and Victims*, 5(2), 119–126;
- Lewis, D. (1999). *Workplace bullying—Interim findings of a study in further and higher education in Wales*. *International Journal of manpower*, 20, 106–118;
- Kelloway, E. K., Barling, J & Hurrell, J. (Eds.), *Handbook of workplace violence*, Thousand Oaks, CA: Sage, pp. 121–146;
- Nye, R. (2004). *Sexuality* in Teresa Meade and Merry Wiesner-Hanks, eds. *A Companion to Gender History*. Oxford: Blackwell Publishing. p. 12;
- Paludi, A. Michele, Nydegger, Rudy, Paludi, Carmen Jr. (2006) *Understanding workplace violence : a guide for managers and employees*, Praeger Publishers, pp. 101–144;
- Randall, P. (1997). *Adult bullying: perpetrators and victims*, London and New York: Routledge, pp. 39–44;
- Staiculescu, A.R., Grigorut, C. Mina, S. (2010) *New Public Management as a Solution to State's incapacity of managing Public Affairs. Public/Private Disputes*”, *Analele Universitatii Bucuresti*, Anul IV 2010, Seria Stiinte Economice si Administrative;
- Shallcross, L., Sheehan, M., & Ramsay, S. (2008) *Workplace mobbing : experiences in the public sector*, 13(2), pp. 56–70;
- Simone de Beauvoir, (1988), *The Second Sex*, translated by H. M. Parshley. Picador. p. 21;
- Sirota, D., Mischkind, L. A., & Meltzer, M. I. (2005). *The enthusiastic employee: how companies profit by giving workers what they want.*, Upper Saddle River, NJ: Pearson Education;
- Vittorio di Martino, Work-Related Violence in W. Weiss, Karen G., (2011), *Neutralizing sexual victimization: A typology of victims' non-reporting accounts*, *Theoretical Criminology*, November, (15), pp. 445–467;
- Universitatea Bucuresti, *Barometrul de Incluziune Socială (Social Inclusion Barometer)*, 2010, [www.fsenordest.ro/BIBLIOTECA/23.08.2010/Barometrul\\_de\\_Incluziune\\_Sociala\\_Populatie\\_si\\_Grupuri\\_vulnerabile.pdf](http://www.fsenordest.ro/BIBLIOTECA/23.08.2010/Barometrul_de_Incluziune_Sociala_Populatie_si_Grupuri_vulnerabile.pdf);
- Zippel, K., (2006). *The Politics of Sexual Harassment: A Comparative Study of the United States, the European Union and Germany*, Cambridge UK: Cambridge University Press;
- Zippel, K., (2007). *Gender Equality Politics in the Changing European Union: The European Union Anti-Discrimination Directive and Sexual Harassment*, Center for European Studies;
- Commission Recommendation 92/131/EEC of 27 November 1991 on the protection of the dignity of women and men at work [Official Journal L 49 of 24.02.1992].

# PRIVATISATION IN EAST GERMANY AND ITS IMPLICATIONS ON THE LABOR MARKET AND HUMAN RESOURCE MANAGEMENT

*STAMULE Tanase*

*Ph.D. Candidate, Teaching Assistant, The Faculty of Business Administration in Foreign Languages, UNESCO Department, Academy of Economic Studies, Bucharest, Romania, [tasestamule@yahoo.com](mailto:tasestamule@yahoo.com)*

*TĂNASE Ionut Dragos*

*Ph.D. Candidate, Academy of Economic Studies, Bucharest, Romania, [dragostanase09@yahoo.com](mailto:dragostanase09@yahoo.com)*

**Abstract:** *This article aims to address some specific aspects of the East German labor market. In a first stage an overview of the privatization process in the East is to be offered: Modus operandi and the structure of the National Agency for Privatization (hereinafter THA) are to be described pointing out the stages of privatization and some key indicators. Also, the factors and the means by which West Germany was able to (positively) influence the evolution of the privatization process in the East are to be explained.*

**Key words:** labor market, privatization, restructuring, reform, unemployment.

**JEL classification:** J0, J7, J8, K31.

## 1. Introduction

The fall of the Berlin Wall on November 9, 1989 was to mark a radical change in the history of postwar Europe. Few suspected that the fall of the socialist regime of the German Democratic Republic (GDR - informally known as the East Germany) was to trigger a chain reaction collapsing the totalitarian regimes in Eastern Europe (Barford, 2002). Federal Republic of Germany (FRG - known as West Germany) and undertook the reconstruction of East Germany, by creating the Monetary, Economic and Social Union herewith. Signed in May 1990, the Reunification Treaty stated that the transition to a market economy is to be achieved without major social disruption while also improving the living and working conditions of the population (Treaty between the Federal Republic of Germany and the German Democratic Republic establishing the Monetary, Economic and Social Union, 1990). The Federal Government estimated that convergence was to be achieved within a shorter period compared to the other former communist States and its *reform policy was based on three main areas: investment subsidies in the East* (under various forms), *monetary union, massive capital transfers to the East*.

One of the main questions this chapter aims to answer can be formulated as follows: can the undertakings of the State be effectively privatized if this task is entirely delegated to an authority responsible for privatization, which has proper autonomy and is independent from the political factors? The question is trying to find the answer through detailed analysis of the privatization process carried out in East Germany by the Treuhandanstalt (THA), the Agency designated for the privatization of state property in East Germany.

## 2. The privatization process in Germany following the reunification: an example of radical reform.

East Germany was considered the economic model of the socialist bloc countries. However, after the fall of the Berlin Wall and the reunification, the economic deficiencies in the East surfaced, demonstrating its lack of functionality (Keller, 2000). After the fall of the Berlin Wall on November 9, 1989 and the reunification of Germany the following year, an ample process of economic, social and political reform was initiated and conducted in the new German Federal Republic. The grounds of this process were the massive privatization of the State's undertakings in East Germany.

In March 1990 was established the **National Agency for Privatization (Treuhandanstalt - THA)**, an organization, with state-owned capital, responsible for privatizing the undertakings in East Germany. In other words, THA took over the property of almost the entire East German economy. The main *objectives of the THA* were:

- most efficient and fast privatization of the state-owned undertakings in East Germany
- increasing the competitiveness of as many state-owned undertakings, so that jobs can be maintained and new ones created
- subsequently, due to increased pressure and slow implementation pace, the THA took over the task of restructuring certain undertakings in order to facilitate their privatization.

In addition to these main objectives, the THA also had the responsibility of funding the organizations it owned, so that they remain operational and not to accumulate trade debt or debt with the state budget. (Woll, 1995).

Gros and Steinherr (1995) describe four stylized forms of ownership structure as arising from the table below.

**Table 1: Types of ownership**

Ownership structure	Features	Where?
Colonial	Assets are mainly held by non-residents	East Germany following the privatization (which is uncomfortable for the residents of the East)
Social	Assets are held primarily by the state (and implicitly by the population)	East Germany before the privatization
Direct	Assets are held primarily by residents and non-residents	West Germany
Indirect	Assets are held by intermediaries who are liable for the management	

Source: adapted from Gros and Steinherr (1995)

*The THA took over an extremely difficult task, namely to assess over 8,000 companies and commercial facilities within an environment of frequent structural changes. The commercial facilities were large organizations, the socialist giants resulting from the late '70s fusion of different types of undertakings which had interdependent relationships within the production process; activities ranging from research to production and sales took place in these commercial facilities, which were centrally coordinated and through which was intended to stimulate the knowledge transfer from the research facilities to the production ones. Many of these commercial facilities were providing the employees with accommodation facilities, health care centers, schools for children, etc. In terms of profitability, these commercial facilities represented an economic disaster, but their immediate dissolution would have been a social disaster, as between 10,000 to 70,000 people worked in each of the 173 commercial facilities (Dyck & Hopper-Wruck, 1998; Schreiber et al., 2002). The THA's role was that of a mediator between various parties involved (Government, federal authorities, trade unions, professional associations, etc.) and between the economic interests and the social and political ones (Hau, 1998, von der Heyden, 1995).*

The proposals presented in the previous paragraph were not however implemented, and the THA was invested to *lead and coordinate the privatization process. Until July 1990, the THA owned over 8,000 companies*, which, in turn, had more than 45,000 production locations / sales units where over 6 million people were employed. The THA also owned all the public utilities, properties of the party and of the military services. At that time, the THA was the largest organization in the world, owning a portfolio ranging from steel and coal industry to service companies; for example, film and music studios, hotels, pharmacies, cinemas. In addition, the THA took over about 2.5 million hectares of farmland and forestry,

which previously belonged to the Political Police (Berndt, 2007; Bryson, 1992; Thick & Steinherr, 1995, Kaser, 1998).

Soon after the THA took over the state's undertakings, a study was conducted to assess the efficiency thereof. The enterprises were evaluated on a scale from 1 (very good) to 6 (very poor). The results of this analysis are presented in the table below:

**Table 2: Assessing the competitiveness of enterprises in East Germany**

Rating	Description	Percentage of enterprises in this category
1	Profitable enterprises which can be directly privatized	2%
2	Enterprises which may be privatized after slight restructuring	7%
3	Solid business plans, but it takes major restructuring	41%
4	Restructuring is possible, however there is no sustainable business plan	24%
5	Limited restructuring possibilities	9%
6	Impossible to be subject of privatization; the closure thereof is recommended	17%

Source: Dyck & Wruck, 1998

As it can be seen, only 2% of the companies were operational and could be directly privatized, while 26% of the companies had a high probability of being closed. The results of this study, which presents a pessimistic economic picture in terms of the privatization process in East Germany, are consistent with the results of an independent study conducted by a group of American economists who estimated that only 8% of the state owned companies were able to cover their variable costs (Akerlof et al., 1991).

Initially, approximately 600 employees were working with the THA when it was established in March 1990. This number was still insufficient for an activity which had an unprecedented magnitude in the economic history, namely the *transformation of a centralized economy in a functioning market economy in a short time*. Thus, by the end of 1991 the number of the employees with the THA grew to 3,000. Also, the number of companies it was dealing with increased to 13,000 after many of the large conglomerates were broken into smaller and easier to manage units (Aghion et al., 1994).

*The THA structure and the operation are to be presented next.*

A large number of the management positions within the THA and the related institutions were occupied by Western managers with wide experience in the market economy. The THA's Board of Directors was constituted both of politicians with experience in economics and private experts specialized in managing bankruptcy, insolvency and liquidation. The Board of Directors is supplemented by an Administrative Board, which consists of West German managers with experience in running private companies in the context of market economy, five representatives of the five new federal states and four trade union representatives. The Administrative Board carries out an advisory and supervisory activity. The activity of these councils met public opposition, resulted in some cases with tragic events, for example, the 1991 assassination, by alleged supporters of a radical left wing organization, of the THA President, Mr. Detlev Karsten Rohwedder, German politician and manager.

Privatization in East Germany was built as a two-step process, each of stages corresponding to certain key activities, as shown in the table below:

**Table 3: Stages of privatization in East Germany**

<i>Stage</i>	<i>Activities</i>
<b>1. Restructuring state-owned undertakings</b>	<b>Commercial facilities division into smaller units having their own legal status</b> (Limited Liability Companies, Joint Stock Companies, etc.) and transfer of property to the THA (Berndt, 2007).
	<b>Establishing the management boards</b> which included experts from West Germany and thus facilitating the transfer of know-how (91% of the management personnel was represented by experienced business people in West Germany).
	<b>Opening balance sheets in DM</b> for all the said companies (this has proved extremely difficult given the difficulty of valuing assets and liabilities (the debts failed to reflect the performance of enterprises and, within the centralized system they were merely a result of political decisions). In view of granting the companies with potential a chance of surviving, financial and accounting adjustments were required.
<b>2. The actual selling</b>	<b>Establishing the method of privatization</b> separately for each enterprise
	<b>The call for tenders public</b> - was the method the most widely used: those interested in purchasing (a large number of potential local and foreign investors, individuals and corporations) were invited to submit a business plan that included precise specifications of the <i>planned investments and the number of employees who were to be kept</i> . In case of breach of these commitments various sanctions were set.
	<b>Negotiation</b> - the THA negotiated with the bidders and when they reached an agreement the latter had to guarantee a minimum level of the investments and number of the kept employees.
	<b>Implementation of other methods of privatization</b> - (MBI, MBO, etc.)
	<b>Closure of those undertakings that could not be sold</b> - there were only two methods for the undertakings which did not find a buyer: either allocating state subsidies (the political pressure on the THA was very high in this respect (Gröner & Baumann, 1994), especially in the industrial cities of East Germany, where the decision of closing unprofitable undertakings was delayed and they were funded with public money for a period) or closure thereof.

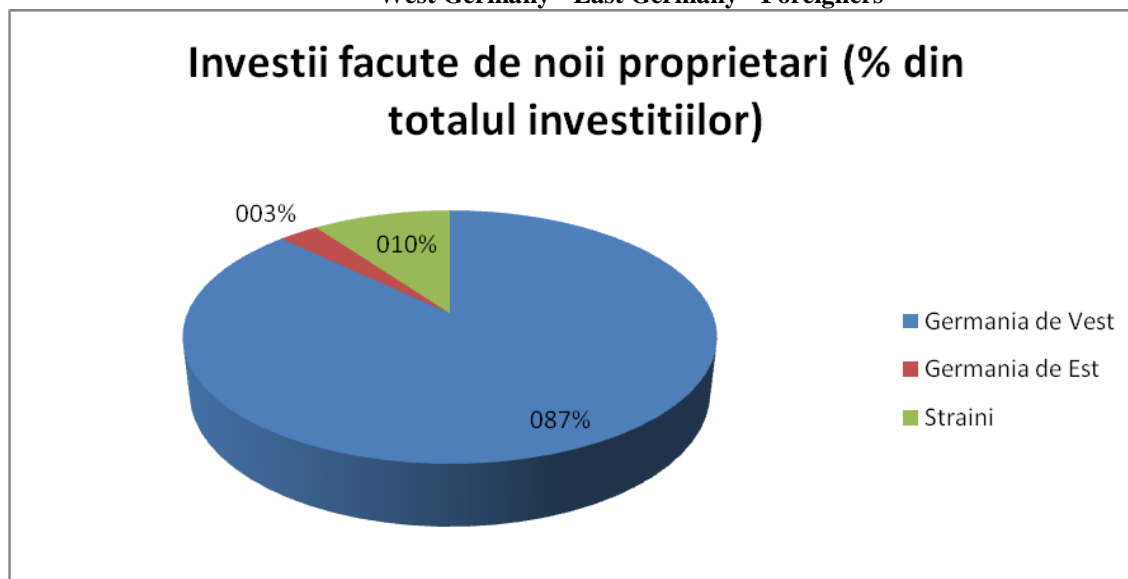
Source: adapted from Gros and Steinherr (1995), Hau (1998)

The THA's activity ended in 1994. Until this date, more than 15,000 organizations have been privatized, 4,500 were re-privatized (rendered to their former owners) and 3,600 were dissolved. About 80% of the privatized organizations went to mid-sized companies. In 3,000 cases the privatization was conducted through the sale to managers and internal employees' method (MEBO) and sale to the external managers with experience in the area method (Management buy-in). Undertakings that have applied these methods had an average size (usually up to 500 employees). Most undertakings were sold to investors in West Germany, only 850 units getting to be owned by investors from other countries.

From the graphs presented below results that the total investment guaranteed by the new owners amounted to DM 298.2 billion and the jobs saved / created amounted to 1.46 million employees. It is noted that western investors are the most advantageous from both perspectives: they undertake 87.1% of promised investments, while the buyers from East Germany undertake only 2.9% of investment (although the latter own 20% of all privatized enterprises). This is probably due to lack of and difficulties faced by

them in obtaining capital. On the other hand, it was intended for the residents in the East to be actively involved in the privatization process (also to avoid social discontent, among others) and therefore some undertakings were sold to them even if the non-residents were providing more favorable terms.

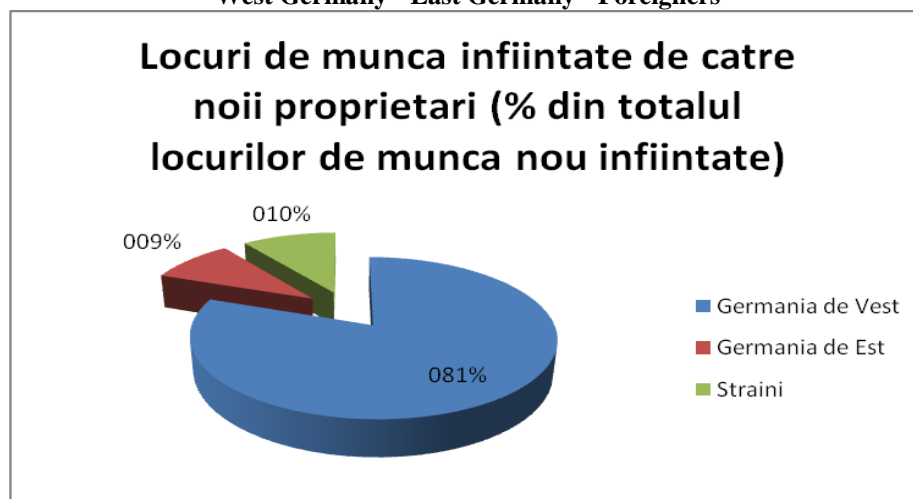
**Figure 1: Investments made by the new owners of the companies from East Germany**  
Investments made by the new owners (% of total investments)  
West Germany - East Germany - Foreigners



Source: Personal illustration based on data from Dyck & Wruck, 1998

In terms of the new jobs created by new owners of the Eastern companies, the situation is similar to that of investments. The Western investors are the most prolific, creating over 80% of total employment, followed by foreign investors who create 10.2% of total employment. Investors from East Germany occupy the last place: despite the fact that they own 20% of new privatized undertakings, they create only 9.2% of total employment.

**Figure 2: Jobs created by the new owners of companies from East Germany**  
Jobs created by the new owners (% of total investments)  
West Germany - East Germany - Foreigners



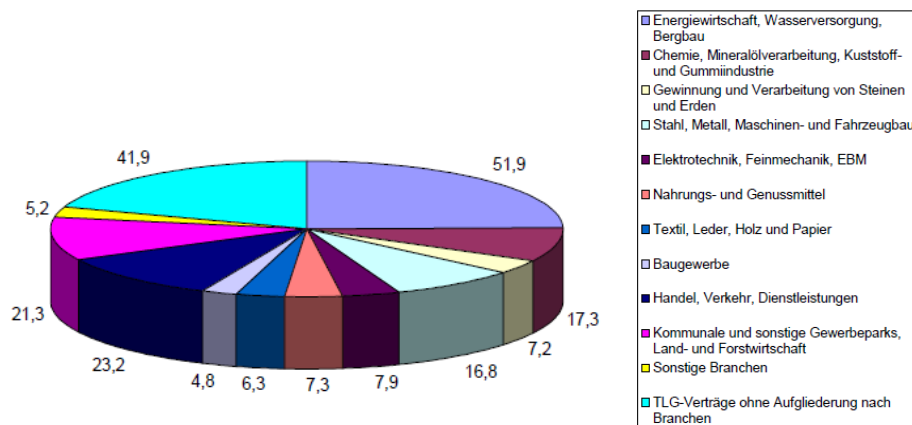
Source: Personal illustration based on data from Dyck & Wruck, 1998

As regards the restitution to former owners, 16,000 of the 18,000 requests were resolved, including 4,000 enterprises that were returned in kind. The issue of restitution was an impediment to privatization, as the legislation initially provided that the restitution in kind was the priority and not cash compensations. This led to ambiguities on the ownership status, the THA not being able to dispose of assets as long as their situation was unclear or was the subject of a lawsuit. However, the Government reviewed that matter and said that restitution in kind was not an absolute priority, and it could be replaced with equivalent compensation, thus leading to the unblock of the privatization process. (Gesetz zur Beseitigung von Hemmnissen bei der Privatisierung von Unternehmen und Förderung von Investitionen, 1991).

As shown in the graphs below, the THA privatizations led to investments of over DM 200 billion and over 1.5 million jobs were created. Most investments were headed for the energy and mining sectors (51.9 billion), textile and leather industry, timber and paper industry (23.2 billion), agriculture and forestry (21.3 billion).

**Figure 3: Investments made in Germany during the privatization carried out by the THA**

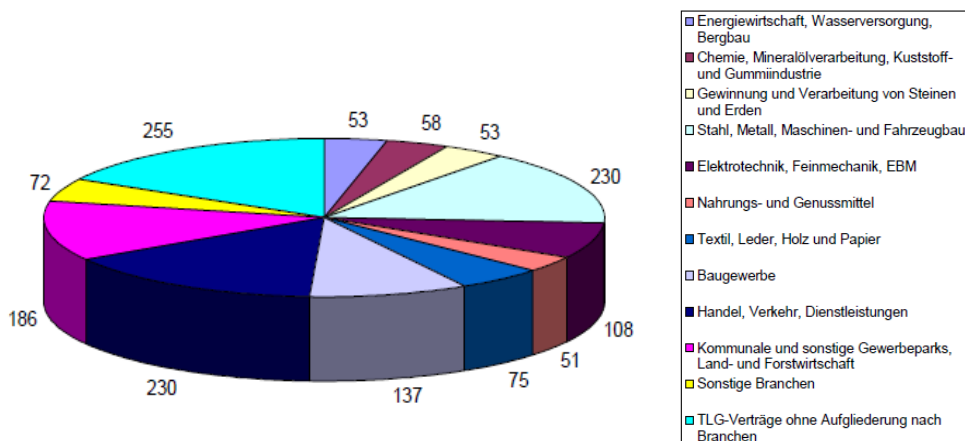
(DM 211 billion)



Source: Bundesministerium der Finanzen, 2005

As regards the employment, most of the jobs were created in trade and services (255,000), followed by the steel industry, metallurgy and machine building (230,000), and agriculture and forestry (186,000).

**Figura 4: Jobs created in Germany during the privatization carried out by the THA**



Source: Bundesministerium der Finanzen, 2005

The privatization process was not completed simultaneously with the termination of the THA activity, which was ended in late 1994, several legal issues still remaining unresolved and many undertakings being non-privatized. Overall, the *THA's activity ended with a net loss*, which was taken over by the government in Bonn, thus leading to the *Western population discontent*, as it had to bear the cost of reform in the East (not only the THA's losses, but also other financial transfers to citizens and businesses in the East).

*The responsibilities of the former THA were taken over by three other agencies*, namely: the National Agency for the Settlement of Aspects related to the Reunification (Bundesanstalt für vereinigungsbedingte Sonderaufgaben, *BvS*) - which dealt with the undertakings still remained non-privatized, the Agency for Privatization of Buildings (Treuhandliegenschaftsgesellschaft, *TLG Immobilien*) - which dealt with the state-owned buildings of urban and industrial areas; the Land Operating and Management Company (Bodenverwertungs-und-Verwaltungs GmbH, *BVVG*) - a subsidiary of the THA founded in 1992, which dealt with agricultural and forest land owned by the state. BVS closed operations in 2000 when it assigned the pending problems to other State bodies. Also in 2000, the TLG business was reoriented from the privatization of state-owned assets towards an active portfolio management designed to generate profit for the Government. Subsequently, the TLG's privatization itself was scheduled, but this initiative was postponed, the excuse for that being the unfavorable economic conditions that occurred once the global crisis started in 2008. In 2011 they went back to the idea of the TLG's privatization, which at that time had a capital of 1 billion Euros and owned property of 1.75 billion Euros, and in 2010 recorded a net profit of over 20 million Euros. As regards the BVVG, in 2008 it announced a profit of over 3.5 billion Euros resulted from the privatization of over 500,000 hectares of agricultural and forestry, which was carried out since 1992. (BVVG, 2008; Bundesministerium der Finanzen, 2005, 2011; von der Heyden, 1995).

### **3. The main challenges encountered in the privatization process in East Germany**

A fast and radical privatization process was implemented in East Germany, which would have been probably doomed to fail if not for the help of the Western population. The *sharp decline in production* is among the main negative aspects thereof (Gagnon et al., 1996), which was much stronger than in other Eastern European countries (where a gradual transition to market economy was chosen). In 1991, the GDP share of the federal states in East Germany was 7.4%, while the share of employees in the total employees of the reunified Germany was 20%. These figures indicate a level of labor productivity in East Germany three times lower than in West Germany. (Gros & Steinherr, 1995).

Also, the *production structure* is very different in the East compared with that in West Germany. The *public sector is twice more important in the East than in the West*, while services and production are twice less important. Underdevelopment of service sector is specific to socialist countries and the productive sector was subject to a broad process of reconstruction. Private consumption in East Germany in 1991 was similar to that in the West, indicating that massive capital transfers were coming from the West. (Bundesregierung, 1992).

The collapse of East Germany production was sharper than in other former socialist countries because after the reunification with West Germany and the adoption of monetary union and after decades of isolation the *East industry was suddenly exposed to the competition in the West*. Thus, consumers had to choose between the Eastern and Western products; the balance was in favor of those in the West, of course. The collapse of East Germany production following the reunification (a fall of 30% in 1991) cannot be compared in magnitude with any country in Central or Eastern Europe (in Poland, Czechoslovakia and Hungary the decrease amounted to about 25%). The only possible comparison is with the recession of the 1930's Great Depression. (Tullio et al. in De Grauwe et al., 1994).

The most affected sector was that of capital goods (down 50%), a main sector of the East Germany industry. This sharp fall is explained by the decline in the exports to other countries of the former Communist bloc: one third of the dramatic decline in production was due to the *reduction of trade relations with former communist countries* and two thirds were due to the *change in the consumption*



*habits of the population* (preference for imported products). (Gros & Steinherr, 1995). Given the low consumption possibilities which existed during communism, at the time of the fall of the Berlin Wall, the Eastern population had available both savings and greater consumption desire, as they have been deprived for more than 40 years. So, the Eastern Germans had the necessary financial resources to buy new and attractive products in the West. By establishing a favorable conversion rate, which was intended to ensure a comparable standard of living, and without realizing the related effects, the German Government indirectly undermined the Eastern economy, whose products were suddenly not required on a free market. Also, by massive capital transfers, domestic consumption has suddenly increased, so that in 1994 it represented 90% of that in the West. These values indicate a rate of consumption 50% higher than that of production, thus indicating the creation of a budget deficit. (Kaser, 1998).

The second major problem of East Germany lies in the external debt crisis. As shown in the table below, the total trade balance recorded a surplus of DM 22.9 million in 1990, and after only 3 years it was reduced to DM 3.2 million. In the midst of privatization, in 1993, the trade balance with European Union (EU) countries became negative (-0.7) due to lack of competitiveness of Eastern products on EU markets. The external deficit reached alarming levels, namely DM -199 billion in 1993.

**Table 5: The trade balance of the federal states of East Germany (in bn. DM)**

	The total external trade balance				EU Countries			Former socialist countries		
	External deficit	Exports	Imports	Trade balance	Exports	Imports	Trade balance	Exports	Imports	Trade balance
1990	-	38,1	22,9	15,2	2,9	2,7	0,2	29,8	14,9	14,9
1991	-152,3	17,5	10,9	6,6	3,0	2,3	0,7	11,4	6,1	5,3
1992	-190,0	13,8	9,6	4,2	3,2	2,5	0,7	7,2	4,6	2,6
1993	-199,0	11,9	8,7	3,2	1,9	2,6	-0,7	6,2	3,9	2,3

Source: Jahresgutachten, 1995

Another major problem faced by Germany during the privatization of the Eastern economy consisted of the alarming increase in unemployment. In 1992-1993 the eastern official unemployment rate reached a level similar to those of the Great Depression of the '30s. However, the actual values were much higher, being masked by the migration to West Germany and early retirements. The German labor market's issues during privatization and the changes in human resource policies at company level are to be presented in detail in the next chapter.

One of the major difficulties encountered during the privatization of undertakings in East Germany is considering the *environmental factor*. Technologies available to them did not meet the minimum environmental standards, which led to difficulty in selling and decrease in the purchase price, as new investments in technologies had to be made with minimal impact on the environment. Environmental issues are one of the main concerns of the potential investors, because most of the state-owned undertakings do not meet the current environmental standards, meaning that the new owners have the obligation to make substantial investments in this regard. (Berndt, 2007; Bluffstone, 2007; Lovei & Gentry, 2002). A study conducted by Klavens & Zapparutti (1995) within 1,000 big companies in the U.S. and Western Europe regarding the factors that hinder the choice of purchasing state-owned companies from the former socialist countries reflect the fact that half of the purchase proposals have not been finalized due to environmental considerations. In East Germany the THA ordered extensive environmental analysis, and environmental audits were subsequently carried out, trying to keep costs as low as possible. Thus, in 1996, when the privatization process was in a final stage, the amount of \$6.4 billion was spent for ecological activities related to the former public undertakings.

The table below comparatively presents the differences regarding some of the most important economic indicators in 1990 in East Germany and in West Germany. The indicators related to the entire Federal Republic of Germany in year 2011 are also presented.

**Table 6: East Germany / West Germany Indicators**

Indicator	East Germany (1990)	West Germany (1990)	Federal Republic of Germany (2011)
<b>Population</b>	16 Mil	62 Mil	82 Mil
<b>GDP</b>	\$160 Bln	\$ 945 Bln	\$ 3,629 Bln
<b>GDP per capita</b>	\$ 9700	\$ 15,300	\$ 37,900
<b>Budget revenues</b>	\$ 123 Bln	\$ 539 Bln	\$ 1,582 Bln
<b>Budgetary expenditures</b>	\$ 123 Bln	\$ 563 Bln	\$ 1,643 Bln
<b>Unemployment rate (actual)</b>	26,9 %	6,1%	6%

Source: Central Intelligence Agency, 1990 and 2011; <http://www.tradingeconomics.com/population-list-by-country>, 2011

It is noticed that immediately after the 1990 reunification the differences between East and West were sky high: West German GDP is 6 times higher than the Eastern one, and the GDP per capita is almost two times higher. The biggest difference is recorded in the real rate of unemployment: East Germany registered values 4.5 times higher than in West Germany. As regards the reference year 2011, through analysis of the values of these fundamental indicators in the Federal Republic of Germany (West Germany + East Germany), one can see that an equilibrium point was reached, marked by positive values in economic terms, showing convergence was achieved between the two regions. Thus, the unemployment rate is 6%, one of the lowest in the European Union. This is a result of the reforms imposed by the Schröder Government and continued by Angela Merkel during the global economic crisis, involving, among others, increase in the flexibility of the labor market and employment and remuneration conditions. Also, the structure of employment (2.4% of the population works in agriculture, 29.7% in industry and 67.8% in services) shows the profile of a highly developed country (the main clue is the high share of services). GDP per capita is \$ 37,900, the 28th in the world in terms of amount, and budget expenditures exceed revenues by \$ 61 billion. (Central Intelligence Agency, 2011).

#### 4. Conclusions

Given the very different values recorded in 1990 between East and West, it is obvious that a certain level of convergence has been achieved only by *directing large flows of capital from West Germany to East Germany* (Gagnon et al., 1996). Thus, since the reunification and up to 2004, the amount of aid West Germany granted East Germany accounted for over 1.2 trillion Euros. Each year over 80 billion Euros have been transferred, which is a large amount of capital for both the sender and for the destination region. One cannot calculate with certainty whether these amounts are the result of government policies or voluntary investments, but it is assumed that most of them are state subsidies.

The research points to an analysis performed at the organization level on the management practices and systems of motivation to improve work conditions, which, as a consequence, leads to attraction and increased retention rate of highly trained employees. Given the above, the next chapter addresses the analysis of the management practices and measures that are recommended at the enterprise level (microeconomic).

## 5. References

- Aghion, P., Blanchard, O., Burgen, R. (1994) *The behavior of the state firms in Eastern Europe*, *European Economic Review*, June 1994.
- Akerlof, G., Rose, A., Yellen, J., Hessenius, H. (1991) *Eastern Germany: Coming in from the Cold*, *Brookings Papers on Economic Activity*, No. 1, pp. 1–87.
- Barford, T. (2002) *What happened to East Germany's Economy?: A Comparison with Poland*, Honors Thesis, Department of Economics, University of Washington.
- Berndt, B. (2007) *Die Treuhandanstalt im Kontext der deutschen Einigung*, Stiftung Universität Hildesheim, accessed on 02.11.2011 at <http://www.uni-hildesheim.de/index.php?id=6601>.
- Bluffstone, R. (2007) Privatization and contaminated site remediation in Central and Eastern Europe: Do environmental liability policies matter, *Ecological Economics*, No.63, pp.31-41.
- Bryson, P. (1992) *The economics of German reunification: a review of the literature*, *Journal of Comparative Economics*, Vol.16, No.1, pp.118-149.
- Dyck, A., Hopper-Wruck, K. (1998) *Organization structure, contract design and government ownership: A clinical analysis of German privatization*, *Journal of Corporate Finance*, No.4, pp.265–299.
- Gagnon, J., Masson, P., McKibbin, W. (1996) German unification: What have we learned from multi-country models?, *Economic Modeling*, No.13, pp. 467-497.
- Gros, D., Steinherr, A. (1995) *Winds of Change- Economic Transition in Central and Eastern Europe*, Longman: London and New York.
- Gröner, H., Baumann, S. (1994) *Die kontroverse um die erhaltung industrielle kerne in den neuen bundesländern*”, *Beitrag zum 27. Internationalen Forschungsseminar: Ökonomische Erfolge und Mißerfolge der deutschen Wiedervereinigung – Eine Zwischenbilanz*, Radein, February 1994.
- Hau, H. (1998) *Privatization under political interference: evidence from Eastern Germany*, *European Economic Review*, No.42, pp.1177-1201.
- Kaser, M. (1998) The Eastern Länder as transition Economy in Hölscher, J., Hochberg, A., *East Germany's economic Development since unification. Domestic and Global aspects*, Macmillan, London, pp. 53-78.
- Keller, W. (2000) From socialist showcase to Mezzogiorno? Lessons on the role of technical change from East Germany's post-World War II growth performance, *Journal of Development Economics*, Vol. 63, pp. 485–514.
- Klavens, J., Zamparutti, A. (1995) Foreign direct investment and environment in Central and Eastern Europe: a survey, *Report for the Environmental Action Programme for Central and Eastern Europe*, The World Bank.
- Lovei, M., Gentry, B. (2002) The Environmental Implications of Privatization: Lessons for Developing Countries, *World Bank Discussion Paper*, No. 426, The World Bank.
- Tullio, G., Steinherr, A., Buscher, H. (1994) German wage and price inflation after unification in De Grauwe, P., Micossi, S., Tullio, G. (eds) *Inflation and wage behavior in the EMS*, Oxford University Press, Oxford.
- Von der Heyden, E. (1995) *Privatization in East Germany: the delivery of an economy*, *The Columbia Journal of World Business*, Vol.30, No.3, pp. 42-54.
- \*\*\* Bundesministerium der Finanzen (2005) *Privatisierung Ostunternehmen*, Pressermittlung No. 26/2011.
- \*\*\* Bundesministerium der Finanzen (2011) *Privatisierung der TLG IMMOBILIEN GmbH*, Datum 04.07.2005.
- \*\*\* Central Intelligence Agency (2011) *The world factbook*, accessed on 22 February 2011 at <https://www.cia.gov/library/publications/the-world-factbook/geos/gm.html>.

# HUMAN RESOURCES MANAGEMENT EFFICIENCY IN THE MILITARY ORGANIZATION

*STĂNIȚ Alexandra*

*T.A., Ph.D. Student, Faculty of Economic Sciences, „Lucian Blaga” University of Sibiu,  
Romania*

[stanit.alexandra@yahoo.com](mailto:stanit.alexandra@yahoo.com)

*RIZESCU Marius*

*SRA Ph.D. Student,, Nicolae Balcescu” Land Forces Academy, Sibiu, Romania*

[mariusrizescu@yahoo.com](mailto:mariusrizescu@yahoo.com)

**Abstract:** *The effectiveness of resources available to an organization depends to an extent to a more effective use of human resources. From this point of view, people are not only very valuable or precious, but extremely expensive and becoming more expensive, requiring appropriate treatment and efficient use.*

*The successful application of the human resources management implies a performance evaluation system, a system of employee incentives and results rewarding. This management system aims at the continuous cooperation of all employees in order to improve the quality of products and services offered by the company, its high performance and its objectives.*

*In this paper I will try to highlight the key ways of evaluating the effectiveness of human resources management and their application within the military organization and, last but not least, the effect they have on staff.*

**Key words:** human resources, management, reward, employees, offered.

**JEL Classification:** M 12

## 1. HUMAN RESOURCES MANAGEMENT IN THE MILITARY ORGANIZATION

The military, through its structure, organization, activities, members, goals and objectives is an organization. As such, it constitutes a social system of the society in which it exists. In other words, the military is the social organization receiving from the society material, human, financial and information resources, manageable in full accordance with previously established goals and objectives. In this sense, a major role is granted to the defense resources management, in general, and human resources, in particular.

Detaching itself from general management, human resources management differentiated and automated, restricting its issue or subject matter and, consequently, has specialized, currently holding a well-defined place in general management.

**Human resources management** requires continuous improvement of activities of all employees to achieve organizational mission and objectives. Exercising that kind of management requires that each manager to be a model of behavioral attitude.

Human resources management possesses a number of features. The first one is of *quantitative order* in the sense that human resources meet a *finite number of people* who are members of a human group. A second feature concerns the human resources' *social character* from the military institution. A third defining feature of human resources is their *psychosocial character*. Basically, human resources from the military are found in the form of human groups, of different sizes with different compositions, both quantitatively and qualitatively, made up in strict accordance with the specific tasks of each military structure.

People represent “undoubtedly the most precious resource as well as the key to any company or organization” (Melamed and Jackson, 1995). Thus we deduce, naturally, that the functions and importance of human resources management are constantly expanding, and that policymakers need to apply the principle of placing the right man at the right time. In other words, people are “the most valuable asset of an organization” [1], a truth highlighted by the famous proverb “the man sanctifies the place”.

Unlike tangible or quantifiable resources such as money, materials and equipment, human resources are characterized by an intangible and unquantifiable side, because people play an important role in shaping the value of the organization, whether public or private, civil or military.

**The human resources** of a military organization consist of people - commissioned officers, non-commissioned officers and petty officers, military employees under contract, civilians - working

effectively and through their work ensuring the achievement of its objectives, highlighting the other resources and striving to use them rationally. In this context, human resources management represents all the activities promoted by the organization's leadership, at all hierarchical levels, to ensure optimal use of the available staff.

A coherent system of human resources management represents a necessity. This from a number of reasons, among which are the following:

- *continuity* of the activity specific to the military institution;
- *relatively limited financial resources* available for this purpose;
- *complexity of the activity* taking place in the military;
- *different conditions* in which military groups live, work and are required to act, in peacetime, during a crisis and at war;
- *presence of the risk of injury or even death* during combat missions;
- *deprivation of certain civil rights* (for example, to enlist in a political party, to be elected in public office).

The successful implementation of human resources management implies the existence of a performance evaluation system, of a system of incentives to employees and results rewarding. This management system aims at permanent cooperation of all employees to improve the quality of products and services offered by the company, the quality of its operation and its objectives.

## 2. PERFORMANCE EVALUATION, NECESSARY ACTIVITY IN THE ASSESSMENT PROCESS OF THE EFFICIENCY OF THE HUMAN RESOURCES MANAGEMENT

**Performance evaluation** can play an important role in fostering employee development: it strengthens their confidence, it can bring immediate material benefits by salary increases and awards, opens perspectives for promotion, clarifying certain career goals, enhances its ambition to raise his training level. As a tool that provides potential, human behavior and achievements assessment, performance evaluation aims at the optimal use of resources (Figure no. 1).

Also, performance evaluation is **a systematic and highly complex process**, which analyzes and assesses both the behavior work and performances of the members of an organization and the potential or its capacity to develop.

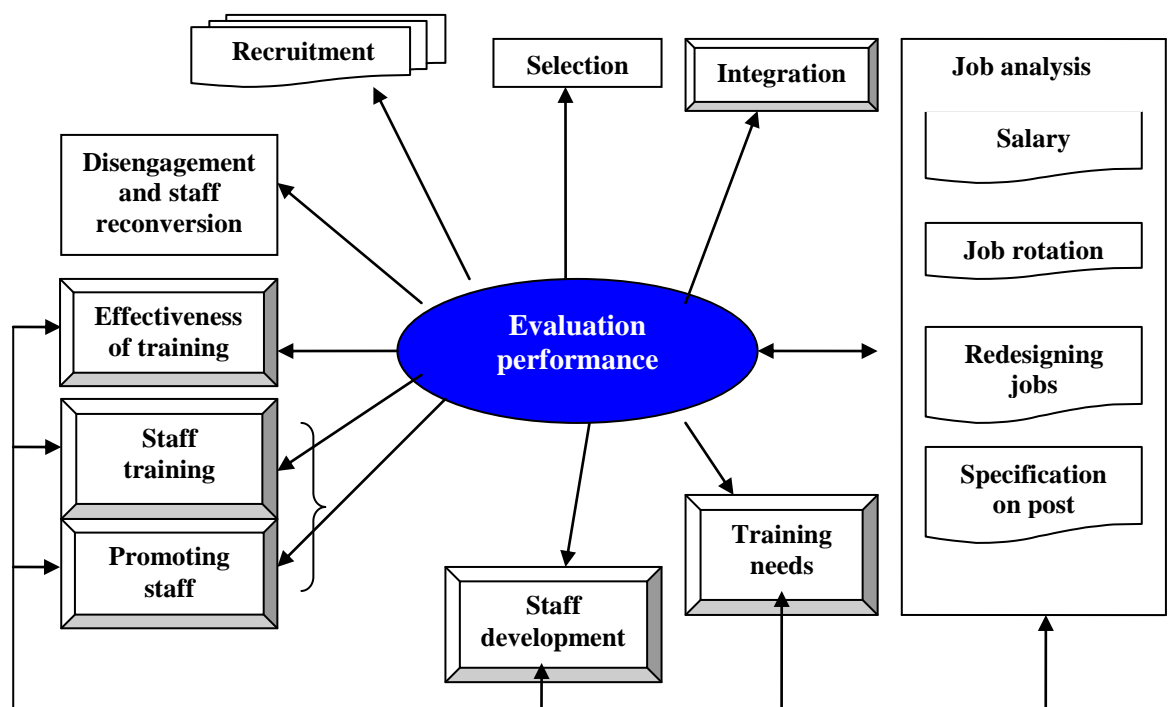


Figure no. 1. The role of the performance evaluation system [2]

Based on Figure no. 1, one can say that the role of performance evaluation is essential for an effective management of human resources, in the view of the many areas where this process is present.

Assessment of human resources assumes the existence of criteria which can be used to measure the standards which must be achievable, common and visible, and specifying the time intervals under evaluation. Since the evaluation of human resources “certain variables considered irrelevant are necessarily omitted” [3] one desires a time frame for observations, reflection and synthesis before the adoption of conclusions.

In general, performance evaluation respects the principle of hierarchy, meaning that individual performance will be measured by its direct superior, the performance of a subdivision by the next hierarchical level and the organizational performance by the top management.

**The performance evaluation process** is completed by providing ratings for employees who have undergone evaluation tests. Conventionally, five skill levels are allowed: very good, good and satisfactory (average), low and very low.

Performance evaluation is made on an ongoing basis by all managers in any organization. In military institutions the process includes all personnel, is conducted systematically and has an official character, trying a certain uniformity of assessment methods (by the existence of instructions). However, the analysis of the form used to assess military personnel (working assessment) does not conclude in a match between employee skills and job specifications, between activities and descriptions and it is quite difficult to direct individual efforts towards the needs of the organization.

In the military organization performance evaluation aims at highlighting the way in which a military fulfills his job duties and assignments in relation to professional military standards.

Issues to be taken into consideration are:

- Results in the performance of specific job requirements to which he belongs and of other duties / tasks all together, as well as results in the professional training in the analyzed period;
- Way in which he obtained those results, in terms of ensuring the necessary time and resources; obtained performance, compared to individual performance objectives and performance standards for all militaries evaluated. Also, each and everyone's results and contribution will be identified in achieving the general objectives of the unit / subunit, as well as failures, shortcomings and needs to improve individual work performance in office.

A very important aspect to note is the successful completion of individual performance evaluation: weak performers always want the evaluation results to remain confidential, while outstanding performers wish that they be made public. Therefore the ones responsible for carrying out this type of activity must show tact in communicating the final results.

Performance of military personnel influences organizational performance itself. Management of military organization with the human resources department tries to obtain increased performance for employees through the various human resources activities. Thus, employee performance becomes a synthesis variable of human resources management efforts to ensure the right person at the right place and for the management organization to effectively use these people. Employee performance evaluation is used, therefore, to assess human resources management.

In addition to conducting assessments using other human resources management activities, they also serve to assess programs and policies undertaken by the Department of Human Resources for staff: training, job redesign, payroll systems, etc.

**Methods and techniques of performance evaluation** in work are numerous, and their evolution has been a continuous development. Also, these methods of evaluation in the organization consider both the assessments of managers on their subordinates and their self-assessments, and “colleagues and staff assessments and evaluation made by subordinates for managers” [4]. Thus, the evaluation processes would meet the expectations of the military institution and the imperatives of modern human resources management.

Our appreciation of people on the results obtained in different fields is sometimes done by endorsement and, sometimes, with the traditional grades of the school system or other grades.

When we are faced with choosing a method or technique for performance evaluation we must take into account the specific characteristics of the organization and its field of activity, the characteristics of the assessed person, the relevant dimensions of performance and specific goals pursued at individual, departmental and organizational level.

Theory and practice in human resources management highlights various attempts to **classify the methods and techniques for performance evaluation** [5] (Table no. 1).

Table no. 1.

ASSESSMENT METHODS	ASSESSMENT TECHNIQUES
Assessment scales	<ul style="list-style-type: none"> <li>• graphic assessment scales</li> <li>• assessment scales with multiple steps</li> <li>• standardized scale</li> <li>• scale with points</li> <li>• assessment scales focused on behavior</li> <li>• behavioral observation scales</li> </ul>
Comparative methods	<ul style="list-style-type: none"> <li>• simple comparison or ranking</li> <li>• comparing the pairs</li> <li>• comparison through forced distribution</li> </ul>

The management of organizations shows a growing interest towards the problem of employee performance. Performance of the organization is increasingly dependent on human resource mobilization. "In the new information society, human capital has replaced financial capital as a strategic resource" ( Naisbitt and Aburdene).

### 3. HUMAN RESOURCES MANAGEMENT EFFICIENCY

Concepts circulated by human resources specialists develop year by year. We hear around us more and more often talks about EQ, NLP, EL, OB and many such abbreviations of very fashionable concepts: emotional intelligence, neuron-linguistic programming, experiential learning, and organizational behavior.

The human resources department could always return to the eternal problems still facing it: to justify if not your existence, then certainly your efficiency. Specifically, although the field of concerns of specialists in human resources has diversified, some old questions arising from the birth of the concept of human resources are still valid:

- How to measure the effectiveness of a human resource department?
- Can one measure the impact that human resources, both as a department and as integrality of people enrolled in the organization has on the organization?

While no one expects that the human resources department to produce money, it being eminently one of the departments that provide support to an organization, there is an increasing pressure to justify its existence by enhancing human capital. Human capital is also the most dynamic element of the organization; the staff may suddenly increase, employee motivation may vary, individual performance may show dramatic changes. As it is now clear that a computer will not become a server next year and then an entire network, so obvious is that a performing employee may increase even at this rate, investing in him being extremely profitable!

That is what human resources efficiency means: measurement, evaluation, comparison and improvement of indicators related to the management of the organization's human resources, in order to create its global development premises.

**The principle of efficiency** refers to the comparison of system inputs with outputs, or of results obtained by the system. In the case of organizations, inputs are the resources employed by them in their work (productive or not), and the outputs are the products / services obtained. Efficiency follows obtaining superior outputs in comparison to the inputs. Efficiency enhancement refers to maximizing outputs while minimizing inputs. Organizations will thus act on both factors involved: outputs and inputs.

In evaluating the effectiveness of human resources management we can stop only on the level of human resources management outcomes and assess effectiveness at this level. This assessment is the most common and easier. Even in organizations where there isn't a concern for formal evaluation of human resources management, one will always appreciate the results of this field, in terms of employment outcomes (within performance evaluation of employees) and of problems related to it.

The general management of the organization will appreciate that human resource management is inadequate when there are labor disputes, when staff resigns and leaves the organization, when it is

difficult to recruit required staff, when employee performance and engagement at employment are weak, when between the existing staff and the necessary one there is a clear discrepancy in professional training.

On the other hand, when the climate at work is agreed both by the management and employees, the human resource is well motivated and involved in achieving the work assigned, when no major conflicts between employees and management exist, when the organization has the required human resource in number and quality and has no trouble maintaining it in the organization and attracting it for recruitment / selection / employment, human resources management is considered good.

These evaluations are common sense, which does not diminish their value. They are fair and justified, because they highlight the human resources management objectives and support for the strategic and efficiency objectives of the organization. These evaluations exist informally in all organizations, whatever the form of the personnel activity and the dimensions of the department. However, it is desirable that the assessment of human resources management is made in a formal and structured way, while ensuring its diagnosis. Early identification of deficiencies of human resources management will enable the organization to correct and eliminate many problems in the staff field.

Human resources management can be assessed through the objectives and results proposed and through the accomplishment of these objectives / results. Human resources management aims to meet the needs of the organization on labor. Human resources management is not limited only to managing the existing human resource at a specific time. It aims to develop human resources strategies to meet the organization's strategies:

- improving the quality of human resources, recruitment and training activities;
- maintaining or changing organizational behavior and organizational culture;
- stimulating long-term and short term labor so as to involve employees in achieving objectives;
- ensuring job satisfaction and stimulation of the creativity of employees.

Efficiency is the basic criterion for evaluation and management of an organization. But effective use of resources depends in an increasingly manner on effective use of human resources and increased employee performance.

Organizations generally expect two things from their staff: participation and effectiveness. The objective of participation is provided by the equity of the human resources management. The objective of participation is about ensuring staffing by hiring and keeping people within the organization. The second major objective, labor efficiency, refers to the ability to perform the required work by the organization. The two objectives are closely interdependent. As employees remain longer in a job, their experience grows and they become more able to perform job tasks. As they become more capable at work, their satisfaction and probability to keep the job increase.

#### 4. REFERENCES:

- Verboncu I. (coordinator), ” *Public Management*”, Editura Universitară, București, 2005;
- Pușcașu, P., ” *Current issues of HRM in the army*”, Editura Academiei Tehnice Militare, București, 2003;
- Dorofte I., ” *Analysis and prediction of human performance*”, Editura Științifică și Enciclopedică, București, 1981;
- Ursachi I. (coordinator), Năftăilă I., Deaconu V., ” *Management*”, Editura Academiei de Înalte Studii Economice, București, 1999;
- Pitariu H. D., ” *Human resources management – professional performance measurement*”, Editura ALLBECK, București, 1994;
- Mathis, R. ș.a., ” *Human resources management*”, Editura Economică, București, 1997;
- Pânișoară G., Pânișoară I., ” *Human resources management – practical guide*”, Editura Polirom, ediția a II-a, Iași, 2005;
- Manolescu, A., ” *Human resources management*”, Editura Economică, ediția a patra, București, 2003.



# MANAGING CORPORATE SOCIAL RESPONSIBILITY IN FINANCIAL CRISIS

*STOIAN Ciprian-Dumitru*

*Ph.D. student, Faculty of Economics and Business Administration/Department of Management, "Babes-Bolyai" University, Cluj-Napoca, Romania, ciprianst@yahoo.com*

**Abstract:** *The aim of the paper is to examine the effects of periods of crisis on Corporate Social Responsibility (CSR) practices. In order to make correct assessments, this material seeks firstly to examine the literature review related to various hypotheses in respect of companies affected by financial crisis, which operate through social actions addressed to different stakeholders. Moreover, this paper focuses on presenting and commenting a model prescribing that the reactions of CSR practices against the crisis change depending on the view of crisis events (i.e. whether are considered threats or opportunities).*

**Key words:** Corporate Social Responsibility, Financial crisis, Crisis Management

**JEL classification:** M14

## 1. Introduction

The financial crisis and CSR are issues which have very much attracted in both academic and non-academic areas, as reflected through an increased number of studies developed to these topics.

After the beginning of the financial crisis of 2008, various companies pursued cuts and savings strategies. Their objective was to minimize their expenses and to maintain their existence. Corporate social responsibility (CSR) activities were also influenced by these strategies exercised by enterprises due to the crisis. As a result, CSR projects started to be diminished.

However, other companies considered their strategy in respect of not affecting CSR projects. Their wish was to establish and to develop business positions on the markets thorough the financial crisis and post-crisis.

The main purpose of the paper is to identify companies' reactions in case of CSR projects and, subsequently, directions of CSR strategies in the period of crisis. This paper seeks firstly to examine the literature review in case of both events together: CSR and financial crisis.

Moreover, specific comments will consider the model developed by Yelkikalan and Kose (2012), which created the link between CSR and financial crisis by assessing together two different concepts: the savings reactions of individuals and companies due to crisis and the strategies of businesses continuing and developing CSR even in times of crisis.

**a.**

## 2. Financial crisis and corporate social responsibility

Financial crisis and CSR – these two concepts together are important to be assessed within the framework of nowadays economic downturn. Many ideas, different samples, various conferences, great studies and important economic experts have tried together to join specific expertise in order to find a credible answer in respect of how CSR actions were affected by financial crisis.

The financial crisis brought worldwide issues to companies, especially due to lack of liquidity. Therefore, CSR projects, as additional costs to business financially in the period of financial crisis, seemed to be deeply analyzed by the companies' representatives.

As a result, following the last years' economic worldwide situation, some of the specialists tried to identify a clear link between financial crisis and corporate social responsibility (CSR). For example, Fernández and Souto (2009) investigate the results of the economic and financial crisis on CSR. They believe that both managers and stockholders are affected by the economic recession and it was difficult to identify a straight line in respect of the relationship between CSR and business economic performance. For many of the companies, CSR represent additional financial cost for the social initiatives. Moreover, by taking into account that a precise set of CSR framework is not to be known, seven issues were highlighted for CSR implementation in period of crisis: innovation, comfortable atmosphere, stakeholders' role, business strategy, market attitude, investor confidence and deep internal reflection. The problem of CSR implementation may be represented by the costs attached to this implementation.

Njoroge (2009) examines the relation between current financial crisis and Kenyan multinational companies, as well as the effects of multinational companies in social projects and labor standards. The methodology of the research used consisted in a telephone interview survey and analysis of Covalence

database. Njoroge's results were in the sense that economic downturn has no severe effect on labor standards while it has a negative effect on funding and implementing social projects. Karaibrahimoglu (2010) observed CSR performance for 2007 (period before the financial crisis) and for 2008 (period of crisis especially in US markets). Methodology of the research consisted in a sample, based on Fortune 500 where 100 companies were randomly selected. The investigation of CSR performance was performed within content analysis of annual non-financial reports. Twenty nine indicators were investigated for estimating CSR performance and were classified into five stakeholders' areas for estimating CSR performance: employee, consumer, government, supplier and society. The presence of information for each of the indicators in CSR reports was scored with 1 and the absence of relative information with 0. Results of the research show that companies decrease CSR projects because of a financial downturn. In order correctly position the decreases of CSR project, USA was in top comparing to other European and non-European countries.

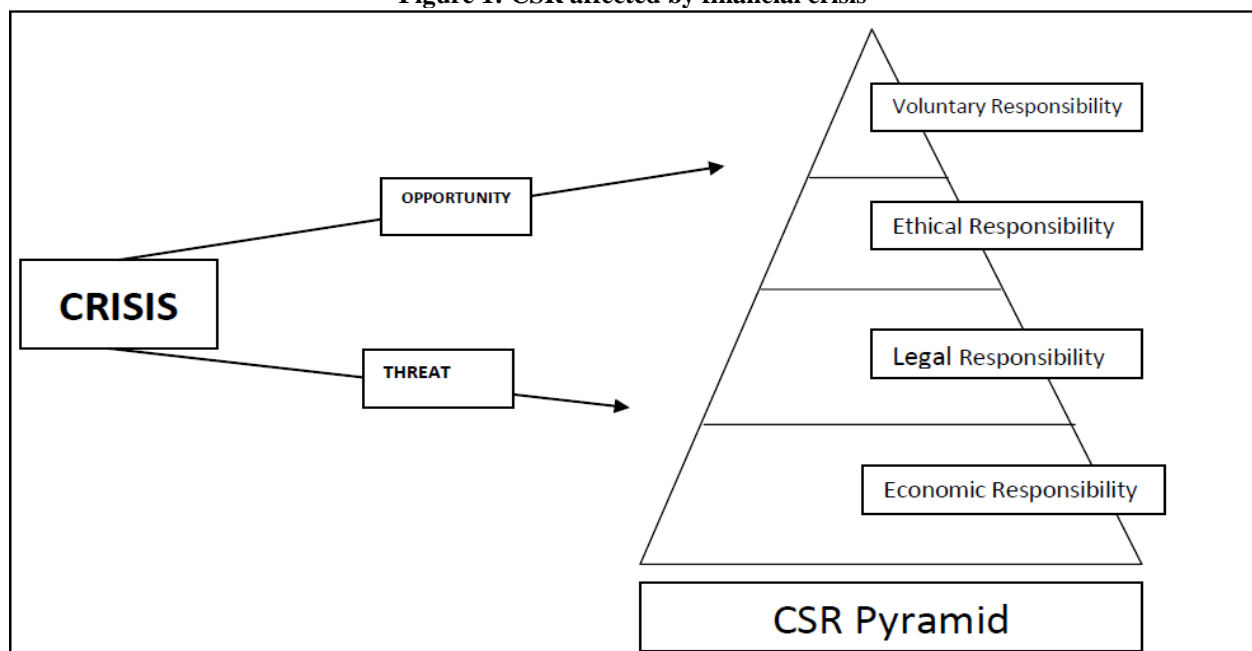
Arevalo and Aravind (2010) investigate the impact of financial crisis to CSR by considering a part of the US companies (i.e. 271) that adopt the principles of United Nations Global Compact (UNGC). The results of the study were that in some cases CSR was considered as a starting point for improving business operation. Companies that integrate UNGC principles with lesser conformity were to be affected more by the financial downturn while companies that adopt a proactive policy concerning UNGC were affected less. Within the analysis tool of CEO statements, there were main six CSR priorities highlighted in time of crisis: building strong leadership teams, applying innovation to solve the most complex global problems, forming partnerships with NGOs, maintaining core commitment to global citizenship, engaging in global dialogue on human rights and joining global discussions on climate change.

All these studies cannot bring a clear and solid opinion on examining the effects of the crisis related to CSR. On one side, authors that studied this issue have determined that the financial problems brought by the crisis decreased the budget allocated to CSR activities and, as a result, had a negative effect on the CSR actions. On the other hand, other opinions were that being engaged in CSR activities is a good method for applying the opportunities brought by the crisis due to the positive effects of CSR activities and businesses and, subsequently, they considered CRS as a part of the crisis environment. In fact, all these opinions were exploring different directions and no real guidance was to be obtained after a literature review.

### 3. CSR and financial crisis: a win-win situation for companies and stakeholders

Yelkikalan&Kose (2012) have recently developed a model in which they tried to explain the effects of the crisis on CSR in different directions, by using Carroll's CSR pyramid. The main arguments of the model were that the reactions of CSR practices against the crisis change depending on the location of these practices in different dimensions of the CSR pyramid.

**Figure 1: CSR affected by financial crisis**



Source: Yelkikalan&Kose (2012)

According to this model, there would be two major propositions that should be addressed:

- a) *“Proposition 1: The Crisis poses a threat to the responsibility dimensions located at the base of the CSR pyramid” and*
- b) *“Proposition 2: The crisis poses an opportunity for the responsibility dimensions located at the top of the CSR pyramid.”*

In order to review the model, specific comments will be presented in accordance with each of the above propositions:

a) On one hand, the authors make a reference to A. H. Maslow human needs grouped in his "Hierarchy of Needs" theory (Maslow, 1943: 370-396). They make the assumptions that lower needs in case of individuals are also similar for companies. According to this, they consider that if economic crisis bring a threat in itself, then businesses would focus on managing actions for survival. The results of previous years' crisis were: uncertainty, financing difficulties, and decline in production levels and, of course, reducing staff.

This first proposition tends to suggest that businesses made cuts to survive against the threats posed by the crisis, in order for companies to secure their first dimensions from Carroll CSR Pyramid. Moreover, it is believed that even the fact of keeping the business on-going could be seen as CSR for all the stakeholders. The size of the threat in relation with the crisis on the responsibility dimensions located at the bottom of the CSR pyramid is in parallel with the enterprise's rate of being affected by the crisis.

It is also believed that measures of the companies affected by the crisis were different from entity to entity, from sector to sector and, consequently, there would be differences in post-crisis CSR activities of the businesses in the sectors that have been the most affected by the crisis and the change for the businesses in sectors that have been less affected by the crisis.

b) On the other hand, it is believed that economic crisis after the 2008 financial crisis has also led to certain social problems. Social problems are referring to cut of jobs. In this context, it is believed that companies (i.e. especially large companies) tended to freeze their number of employees and, why not, to hire more stuff. It is practically a different situation compared to proposition 1. In this case, businesses desire to make use of the opportunities in the crisis and, as a result, want to put CSR activities at the forefront in the crisis periods since it makes positive contributions to the society and the corporate reputation of the businesses. CSR may be positively affected by using the crisis opportunity by transforming the fundamental values of the business into an advantageous position.

The authors make a reference also to Iwacewicz-Orlowska and their opinion about positive correlation between CSR and long-term company performance. In times of crisis, CSR will both allow a better risk management and strengthen the sense of confidence in the companies that would be required for performing the activities to be needed in the course of the crisis. (Iwacewicz-Orlowska, 2010). Due to reasons as such, especially large-scale and / or global businesses have chosen to maintain their effective and active CSR practices they have been continuing for many years in the crisis period as well.

It is also reflected the companies' scale importance in front of the financial crisis. It is well known that huge MNCs are to be easily put in situation to fire personnel comparing to lower companies, which are interested to maintain and to conserve good relationship with their employees.

Proposition 2 of the model is also sustained by a study carried out by Giannarakis and Theotokas in 2011. The Greek authors have used Global Report Initiatives (GRI) in order to assess the impact of financial crisis on the performance of CSR. They conducted a study on 112 large companies for the period covering 2007-2010. According to this study, CSR performance increased in 2007 and 2008. The reason for this increase was suggested to be the businesses' aims for maintaining their brand value and previous gained assets.

Other argument used by Yelkikalan&Kose in order to sustain the use of opportunity during the crisis in respect of CSR actions is related to an increased number of organizations engaged in CSR ratings in recent years and the importance of these ratings.

Moreover, another study resulted in positive and significant correlation between different variables, which did not change in the pre-crisis and post-crisis periods (Selvi, Wagner and Turel, 2010: 285).

The study analysed above is relevant on both sides. Practically, even if negative and positive effects on CSR actions are presented, definitely the overall result may be seen as a fair attitude of companies faced with financial crisis. Many may argue that cost savings strategies were a method of CSR for companies, in order to avoid the disaster: bankruptcy. Others may argue that taking in front the crisis opportunity by developing CSR actions may result in good financial outcomes and a quick exit from financial crisis. There might be also specialists to consider the vice-versa of the situations and, why not, a mixed situation.

In all potential cases, Yelkikalan and Kose were cautioned and correct to present Carroll's CSR pyramid (derived from Maslow pyramid of needs) - related to the opportunities and threats of financial crisis, in respect of influences regarding CSR actions. The result of the study is that either strategy adopted by a company during the financial crisis in respect of CSR policy may be covered and explained by this model.

#### 4. Conclusions

During the last decades, CSR has been dramatically increased, mostly in developed economies. This paper's objective was to examine the effects of periods of crisis on CSR practices. Initially, introspection through literature was accomplished, in order to assess a potential link between financial crisis and its effects on CSR. The results of the literature review were controversial, as the experts concluded differently: some of them considered that no precise link can be defined as financial crisis and CSR are two different concepts, while others considered both positive and negative reactions of financial crisis to CSR.

This study aimed to present, review and comment also on a very recent study carried out by Yelkikalan and Kose, from Canakkale Onsekiz Mart University from Turkey. Their research consisted firstly in establishing a parallelism between Carroll's CSR pyramid and Maslow's pyramid of hierarchy of needs and reflected on the necessity to consider primarily the needs/activities that are located at the bottom of the pyramid in times of crisis (threat component of the model).

Furthermore, it was presented the view of CSR activities, as a great tool for making use of the opportunities in the environment generated due to the crisis and indicated good results for "businesses adopting CSR concept and executing it at the level of philanthropy with a sense of continuity carried on their CSR activities without interruption in times of crisis" (opportunity component of the model).

By taking into consideration these components of the model (threat and opportunity), it should be concluded that different answers can be given to the "what is the direction of the impact of crisis on CSR activities?" question. The model presented in this study states that crisis encounters various effects on different levels of CSR and presents a different perspective for answering the question from above.

The conclusion of the model would be that business equilibrium must be applied in order to correctly develop CSR strategies during the financial crisis. It would be indicated that business responsible persons to perceive the crisis as a threat to their economic activities and take precautions on costs and, subsequently, on CSR programmes. At the same time, the business responsible persons should continue to act responsible (i.e. through CSR activities) at least at a lower level (e.g. philanthropy) without interruption in times of crisis.

The strategy of perceiving the crisis both as opportunity and threat (i.e. related also to CSR activities) would help companies to continue their business in financial crisis and would assure their long-term profitability of the business.

#### 5. References

- Burlea Schiopoiu, A. and team (2010), The Relationship Between Financial Crisis, Corruption, And Corporate Social Responsibility In Romania, *Management and Marketing Journal, University of Craiova, Faculty of Economics and Business Administration*, vol. 0(1), pages 65-72, May 2010
- Carroll, A.B. (1991), „The Pyramid of Corporate Social Responsibility: Toward the Moral Management of Organizational Stakeholders, *Business Horizons*, July – August, 39-48.
- Fernández, B., Souto, F. (2009). “Crisis and Corporate Social Responsibility: Threat or Opportunity?”, *International Journal of Economic Sciences and Applied Research* 2 (1): 36-50
- Giannarakis, G., Theotokas, I. (2011). “The Effect of Financial Crisis in Corporate Social Responsibility Performance”, *International Journal of Marketing Studies*, Vol. 3, No. 1; February 2011.

- Iwacewicz-Orlowska, M.A.A. (27-29 May 2010). “*Corporate Social Responsibility and Global Crisis*”
- Karaibrahimoglu, Y.Z. (2010), Corporate social responsibility in times of financial Crisis, *African Journal of Business Management*, 4(4), 382-389.
- Njoroge, J. (2009). Effects of the global financial crisis on corporate social responsibility in multinational companies in Kenya, *Covalence Intern Analyst Papers*, available at:
- [www.covalence.ch/docs/Kenya-Crisis.pdf](http://www.covalence.ch/docs/Kenya-Crisis.pdf) (October 30, 2010).
- Selvi Y., Wagner, E. and Türel A. (2010) “Corporate Social Responsibility In The Time Of Financial Crisis: Evidence From Turkey” *Annales Universitatis Apulensis Series Oeconomica*, Number 12, Issue 1.
- Yelkikalan N., Kose C (2012), The effects of the financial crisis on corporate social responsibility, *International Journal of Business and Social Science*, Vol. 3, No. 3, February 2012

# CRISIS AND CRISIS MANAGEMENT. CREATIVE ECONOMY AS A FEASIBLE OPTION. CHALLENGES AND OPPORTUNITIES

**SUCIU Marta-Christina**

*Professor, Ph.D., Faculty of Economics, Department of Economics and Economic Policies, Academy of Economic Studies, Bucharest, Romania, e-mail: [suciuchristina@yahoo.com](mailto:suciuchristina@yahoo.com)*

**ALDEA-PARTANEN Andra**

*Ph.D. candidate, Faculty of Education, Department of Sociology and Environmental Education, University of Oulu, Oulu, Finland, e-mail: [andra.aldea-partanen@oulu.fi](mailto:andra.aldea-partanen@oulu.fi)*

**PICIORUȘ Luciana**

*Ph.D. candidate, Faculty of Economics, Department of Economics and Economic Policies, University Academy of Economic Studies, Bucharest, Romania, e-mail: [lusianapiciors@yahoo.co.uk](mailto:lusianapiciors@yahoo.co.uk)*

**Abstract:** *We have chosen to write about the global economic crisis because it is the main cause of many unpleasant things happening across the world. People lose their jobs, salaries are diminished, the life standard is decreased, while companies are facing financial distress. This paper analyzes the effects of the crisis on the international markets and the potential impact of crisis on Romania's economy. The crisis management and the measures that might be taken in order to decrease the negative impact of the crisis will be an important aspect within this study.*

**Key words:** crisis, crisis management, creative economy.

**JEL classification:** D83, M12, A2.

## 1. Introduction

Crisis can strike in every economy and organization. It is important to have a detailed plan of action for every type of crisis that may occur. However, such a plan can make or break an organization in times of a crisis (Pheng, Ho & Ann, 1997). It is not a question of 'if' an organization will face a crisis; it is a question of 'where' and 'when' the crisis will occur. Despite if it is an earthquake, a disaster or a strike, the crisis might hit the nations/regions and/or organization with full force. All that matters for the organization is how well prepared they are to handle it (Kash & Darling, 1998). A crisis is a high consequence, low probability action that strikes an organization, and has the potential power to threaten the entire business. A crisis endangers the entire public sense of values, safety and correctness (Alas, Gao & Vanhala, 2010; Hale, 1997; Pearson & Clair, 1998).

Due to all kind of crisis that humanity faces nowadays, crisis management has become one of the most controversial and advertized subjects. Crisis can have disastrous consequences upon us as individuals, state, economy and even at a planetary scale. Not to mention some critic examples that put humanity upside down: 2012 and 2004-Indian Ocean Earthquake, 11 March 2011 Earthquake in Japan, Chernobyl disaster, Rainbow/PUSH's (People United to Serve Humanity) boycott of Nike 1982 Chicago Tylenol murders, Dow Corning's silicone-gel breast implant and so on (Suciu, M. C, 2010), the 2008 financial crisis that we still resent today.

## 2. Brief literature review. Conceptual framework

The word 'crisis' originates from the Greek word 'krisis'-translated into English it would be similar to 'decision' or 'choice' (Paraskevas, 2006). Often, there are many solutions to situations where 'choice' and 'decision' are involved. So crisis includes both the idea of the "problem" and that of the "solution to the problem" seen as an opportunity to change something. A trade-off between important options often eases the situation and strategic plans are often utterly crucial for the organization to posses (Cutlip, Center & Broom, 2006).

The definition of crisis today deals with three elements: (a) a threat to the organization, (b) the element of surprise, and (c) a short decision time (Seeger, Sellnow & Ulmer, 1998). Venette (2003) argues that "crisis is a process of transformation where the old system can no longer be maintained." Therefore the fourth defining quality is the need for change. If change is not needed, the event could more accurately be described as a failure or incident, not necessary as a crisis.

Crisis has several defining characteristics. Seeger, Sellnow and Ulmer (1998) say that crises have four defining characteristics that are "*specific, unexpected, and non-routine events or series of events that [create] high levels of uncertainty and threat or perceived threat to an organization's high priority goals.*" Thus the first three characteristics are that the event is unexpected (i.e., a surprise), it creates uncertainty and is seen as a threat to important goals. Apart from natural crises that are inherently unpredictable (volcanic eruptions, tsunami etc.) most of the crises that we face are created by man. Hence the requirement of their being 'unexpected' depends upon man failing to note the onset of crisis conditions. Some of our inability to recognize crises before they become dangerous is due to denial and other psychological responses that provide protection for our emotions.

Where states are concerned, Michael Brecher, based on case studies of *the International Crisis Behavior (ICB) project*, suggested a different way of defining crisis as conditions are perceptions held by the highest level decision-makers of the actor concerned: threat to basic values, with a simultaneous or subsequent; high probability of involvement in military hostilities, and the awareness of finite time for response to the external value threat.

*Crisis management* is the process by which an organization deals with a major event that threatens to harm the organization, its stakeholders, or the general public. In contrast to risk management which involves assessing potential threats and finding the best ways to avoid those threats, crisis management involves dealing with threats after they have occurred. It is a discipline within the broader context of management consisting of skills and techniques required to identify, assess, understand, and cope with a serious situation, especially from the moment it first occurs to the point that recovery procedures start. Darling (1994) clarifies that crisis management is not equal to mismanagement, i.e. crisis type situations that occur due to inadequate or inappropriate planning or the complete lack of it. Therefore, as Chong (2004) concluded, crisis management serves as a crucial part of modern strategic management. It should be at the utmost importance that to secure an organization's existence before it can devote its efforts towards growth oriented objectives. According to Eliasson and Kreuter, the term crisis management can vary a lot between countries and even between organizations (in Khodarahmi, 2009). This is due to the level of dynamic that exists in different situations in different parts of the world. Crisis management in its essence is providing organizations with an organized response to crisis situations. Darling and Kash (1998) also define crisis management as 'a series of functions or processes to identify study and forecast crisis issues'.

In order to have a fully understanding of the concept, we will analyze what are the crisis' stages, events and several crisis classifications.

According to Fink, successful crisis planning removes much of the threat and uncertainty in potential future crisis, and allows for more control, should a crisis appear (in Paraskevas, 2006). More than 25 years ago, Fink stated that a crisis can consist of up to four different stages: (1) prodromal crisis stage; (2) acute crisis stage; (3) chronic crisis stage and (4) crisis resolution stage, and that any crisis can be described as being in any of the four stages. It is important to identify early warning signals for the crisis, even though it might be hard to recognize them, especially in a prodromal state. A crisis may even be apparent to an organization, yet no action is taken to prevent it. Once the organization has passed the initial stage, the crisis will start causing harm depending on the degree of effectiveness of the company. The third stage is the 'clean up' stage, when the organization tries to retrieve from the crisis, learn from its mistakes and achievements. In the final stage, the organization goes back to normality, and resumes with its business as usual (Paraskevas, 2006). When an organization is facing a potential crisis event, it is utterly important to identify all the potential problems that could harm it. Mitroff developed seven types of major crisis events (in Polland & Hotho, 2006):

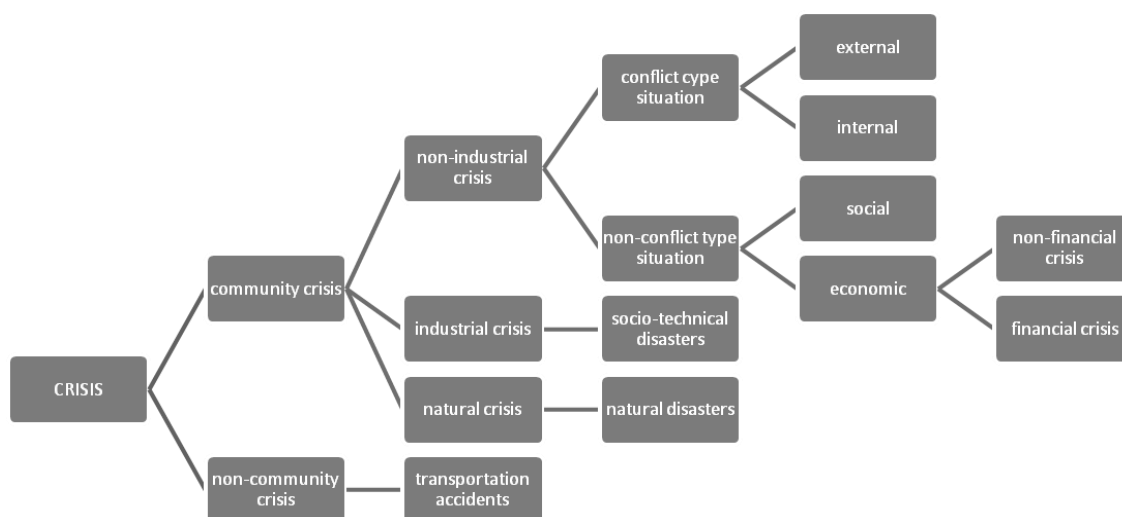
- *Economic.* Includes crisis such as labor strike, market crash and hostile takeovers.
- *Informational.* Loss of crucial information, false information.
- *Physical.* Breakdown of plants, product failures.
- *Human resource.* Rise in absenteeism and accidents, violence, corruption.
- *Reputational.* False rumors, gossip.
- *Psychopathic acts.* Terrorism, kidnapping, hostage taking, violence.
- *Natural disasters.* Tsunamis, hurricanes, flood.

Crisis management evaluates all the relevant factors, and affirms their level of risk and the amount of attention they need. A noticeable point is that the management is able to control some of the factors above. However, the majority of the factors is outside the control or influence of the organization, and needs to be discussed from a broader perspective. If the starting point is not clearly defined, the approach

to the factors requires a process of rationalization. This method might be risky, since it creates an illusion of control, when it, in real life, does not exist. Up to a certain point, the literature encourages denial or blindness of the crisis, when the opposite is preferred. This denial has been identified as one of the largest barriers to effective crisis planning (Pollard & Hotho, 2006).

There are many types of crises. To get an easier understanding of how each of the crises function, types of crisis will be examined in the figure 1 Crisis types. The first distinction is between community crisis and non-community crisis. A community crisis splits up into several subcategories, such as natural crisis, industrial crisis and non-industrial crisis. A natural crisis is the result of a disaster in nature e.g. earthquakes, flooding, tsunamis and volcano's eruptions. An industrial crisis is the result of socio-technical disasters, such as rail crash, product recall, stadium fires and computer problems. The non-industrial crisis includes political conflicts and non-conflict crisis. The non-industrial crisis splits up into two different sub-categories, conflict type situation and non-conflict types of crisis. As shown in the figure below, Shaluf, Ahmadun & Aini developed a complex framework for crises typology (Shaluf, Ahmadun & Aini, 2003). The first category is divided into two genres, internal and external. The external genre includes crisis such as war, threats, relation breakdown, embargoes and blockades. The internal genre includes crisis such as political crisis, internal conflicts, terrorists attacks, strikes, sabotage, riots and executive kidnapping. The non-conflict types of crisis narrows down to economic crisis and social crisis. Events such as the East-Asia financial crisis are considered to be financial crisis. Events like the UK's food-and-mouth crisis are classified as non financial crisis. Social crisis includes the following events: false rumors, on-site sabotage, blackmail, bribery, price fixind and racism (Shaluf, Ahmadun & Aini, 2003).

**Figure 1: Crisis types**



Source: Shaluf, I.M., Ahmadun F. Said, Aini, M. S., (2003)

A review of disaster and crisis, Disaster Prevention and Management, Vol. 12, No. 1, pp.24 - 32

The economic crisis began as a financial crisis in the fall of 2008. At that time the American financial system broke. This shock has accelerated the transition of recession in the USA – which had lasted the whole of 2008 after starting with the mortgage crisis there in August 2007 – into a world recession. We can not point exactly the moment the financial crisis began, but the bankruptcy of Lehman Brothers on September 15, 2008 is a good starting point.

The bank has made loans to people with little support, making these kinds of loans very risky. When the interest rates rose, the borrowers could no more repay Lehman. This led to huge losses for Lehman Brothers (\$60 billion loss in bad real estate loans-Blue R., White J., 2009). More than that, the poor relations with top banks of United States, which refused to help the bank, has made Lehman declare bankruptcy as its only alternative. This type of crisis has never happened before. The recession has a component of financial crisis preceded by a reduction of real industrial production. The complex combination of a fusion of the major elements of the credit system of the USA, distribution, stockbroker, a bank and credit crisis worldwide with the obvious cyclic content makes it a systemic crisis. This



concept does not so much mean the scale and depth of shocks, but how far it specifies subsequent systemic changes in the economy, its cyclic model, financial sector and financial regulation, and, possibly, general rules of business functioning in the sphere of corporate control. Other characteristics of the crisis are (Congleton R. D., 2009): high speed of curtailment of production and world trade; growth of unemployment; the overall squeeze are continuing and are accompanied by a loss of trust in the economic agents of financial regulators.

The crisis which has begun in 2008 seems to start in the American financial sector. The crisis has then quickly expanded on a worldwide scale, especially through some industries such as retail trade, auto industry and industrial equipment. In turn, demand and prices for raw materials, especially metals and fuel. Practically identical branches are affected worldwide: construction, metallurgy, building materials, real estate and retail trade (Krugman P. R., 2009). The synchronism of the crisis throughout countries, the speed of distribution of information and the decrease in orders and deliveries are not letting up, as was earlier the case in any area which “*buys instead of sells*” by inertia or ignorance, and most importantly due to isolation. Reduction in demand and the spreading of the crisis is advancing in similar ways across the main regions of the world. It is possible to say that a systemic failure has occurred in all bodies of supervision, analysis and control of the financial markets. The essence of the problem consists of the inability of institutions and markets to estimate adequately a set of risks. It has turned out that they can only track partial risks, but do not see systemic threats. It is already clear that together with the crisis in financial regulation it is possible to settle also a crisis in trust in financial regulators in the wide sense of the word.

What has begun as a financial crisis has transformed in a global economic crisis, increasingly influencing the real sector all over the world, starting a dangerous mechanism. The crisis has self-developed through the transfer of a reduction in demand in industries via foreign trade. In a few months after the collapse of stock exchanges, the bubble of prices for metals and building materials throughout the world burst (Congleton R. D., 2009, p. 38). A worldwide reduction of orders and spending on capital investments began.

### **3. Models and theories associated with crisis management**

Successfully defusing a crisis requires an understanding of how to handle a crisis before they occur. Gonzalez-Herrero and Pratt found the different phases of Crisis Management. There are three phases in any Crisis Management as below:

- *The diagnosis of the impending trouble or the danger signals.*
- *Choosing appropriate Turnaround Strategy.*
- *Implementation of the change process and its monitoring.*

#### *Crisis management planning*

No corporation looks forward to facing a situation that causes a significant disruption to their business, especially one that stimulates extensive media coverage. Crisis management planning deals with providing the best response to a crisis.

#### *Contingency planning*

Preparing contingency plans in advance, as part of a crisis management plan, is the first step to ensuring an organization is appropriately prepared for a crisis. Crisis management teams can rehearse a crisis plan by developing a simulated scenario to use as a drill. The plan should clearly stipulate that the only people to speak publicly about the crisis are the designated persons, such as the company spokesperson or crisis team members. The first hours after a crisis breaks are the most crucial. Working with efficiency is important, and the plan should indicate how quickly each function should be performed. When preparing to offer a statement externally as well as internally, information should be accurate.

Providing incorrect or manipulated information has a tendency to backfire and will greatly exacerbate the situation. The contingency plan should contain information and guidance that will help decision makers to consider not only the short-term consequences, but the long-term effects of every decision.

#### *Business continuity planning*

When a crisis will undoubtedly cause a significant disruption to an organization, a business continuity plan can help minimize it. First, one must identify the critical functions and processes that are necessary to keep the organization running. Then each critical function and or/process must have its own contingency plan in the event that one of the functions/processes ceases or fails. Testing these contingency plans by rehearsing the required actions in a simulation will allow for all involved to become more sensitive and aware of the possibility of a crisis. As a result, in the event of an actual crisis, the team members will act more quickly and effectively.

### *Structural-functional systems theory*

Providing information to an organization in a time of crisis is critical to effective crisis management. Structural-functional systems theory addresses the intricacies of information networks and levels of command making up organizational communication. The structural-functional theory identifies information flow in organizations as "*networks*" made up of members and "*links*". Information in organizations flow in patterns called networks.

### *Diffusion of innovation theory*

Another theory that can be applied to the sharing of information is Diffusion of Innovation Theory. Developed by Everett Rogers, the theory describes how innovation is disseminated and communicated through certain channels over a period of time. Diffusion of innovation in communication occurs when an individual communicates a new idea to one or several others. At its most elementary form, the process involves: (1) an innovation, (2) an individual or other unit of adoption that has knowledge of or experience with using the innovation, (3) another individual or other unit that does not yet have knowledge of the innovation, and (4) a communication channel connecting the two units. A communication channel is the means by which messages get from one individual to another.

### *Role of apologies in crisis management*

There has been debate about the role of apologies in crisis management, and some argue that apology opens an organization up for possible legal consequences. However some evidence indicates that compensation and sympathy, two less expensive strategies, are as effective as an apology in shaping people's perceptions of the organization taking responsibility for the crisis because these strategies focus on the victims' needs. The sympathy response expresses concern for victims while compensation offers victims something to offset the suffering.

### *Crisis leadership*

James identifies six leadership competencies which facilitate organizational restructuring during and after a crisis.

- *Building an environment of trust*
- *Reforming the organization's mindset*
- *Identifying obvious and obscure vulnerabilities of the organization*
- *Making wise and rapid decisions as well as taking courageous action*
- *Learning from crisis to effect change.*

Crisis leadership research concludes that leadership action in crisis reflects the competency of an organization, because the test of crisis demonstrates how well the institution's leadership structure serves the organization's goals and withstands crisis. Developing effective human resources is vital when building organizational capabilities through crisis management executive leadership.

### *Unequal human capital theory*

James postulates that organizational crisis can result from discrimination lawsuits. James's theory of unequal human capital and social position derives from economic theories of human & social capital.

These theories consider that minority employees receive fewer organizational rewards than those with access to executive management. In a recent study of managers in a *Fortune* 500 company, race was found to be a predictor of promotion opportunity or lack thereof. Thus, discrimination lawsuits can invite negative stakeholder reaction, damage the company's reputation, and threaten corporate survival.

## **4. Crisis management. Best practice approach**

### **4.1. Best Practice guide - macroeconomic approach**

A new development paradigm is emerging that links the economy and culture, embracing economic, cultural, technological and social aspects of development at both the macro and micro levels. Central to the new paradigm is the fact that creativity, knowledge and access to information are increasingly recognized as powerful engines driving economic growth and promoting development in a globalizing world. In a world of scarcity and uncertainty where economic, political and fiscal policies showed that failure can appear in no matter of the size and power of the specific state or continent, new and innovative solutions are taken into account.

A transformation to a knowledge-or *idea-driven creative economy* is desirable, the current financial and economic maelstrom has accentuated its importance.

The combination of this transformation and the current economic uncertainty is leading to struggles and difficulties for many states, but it also opens great opportunities for each and every one of them. In crises like these, nations, regions, provinces, and states can rapidly change ground; they can improve or

lose position, depending on the actions they take. Now is the time for us, the Romanians to take bold actions to ensure our future prosperity.

As in all times of economic crisis, there is considerable pressure on governments to protect the past and to undertake bailouts – to preserve what we have during this time of uncertainty. But this protective approach can only forestall the inevitable. *Martin Prosperity Institute*, in the research *Ontario's Opportunities in the Creative Age* suggested that there is a better way: investing in people, businesses, institutions, and infrastructure. Productive and future-oriented investment will generate prosperity for the long term.

There is no greater resource than the creativity, innovativeness, and productive talents of people. The goal must be to harness and use full creative talents, to grow the businesses and industries of the future, to use openness, tolerance, and diversity to gain economic advantage, and to invest in the infrastructure of the future in ways that enable more innovation and economic growth. Romania can and must take a high-road strategy for economic prosperity in which all Romanians can participate. We owe it to ourselves and future generations to build a vibrant economy for the creative age.

The current economic transformation is as big and as challenging as the transformation from agriculture to industry. Our economy is shifting away from jobs based largely on physical skills or repetitive tasks to ones that require analytical skills and judgment. This shift is also evident in the long-term trend away from employment in goods-producing to service industries, from occupations that depended on physical work to ones that rely on creativity. Competitive advantage and prosperity will go to those regions that can best prepare themselves and adapt to this long-run trend. We must embrace it and act in ways that create a distinctive advantage for the region and ensure our long-term prosperity (Roger Martin, Richard Florida, 2009). In doing so, we must recognize that our current economic transformation – like others before it – not only generates considerable future opportunity, but also considerable inequality. Certain industries have expanded and certain occupations have seen their wages grow considerably, while others have languished, stagnated, or declined. Greater returns have gone to innovative industries, to more highly educated people, to those in creative occupations, and to urban areas. Our world is becoming increasingly spiky, with peaks that help to drive economic growth and valleys that are languishing. Our aim is not to lop off the peaks, but to raise the valleys. Our forebears did that in the industrial age by ensuring that manufacturing work was productive, well-paid, safe, and secure and by developing an infrastructure that helped grow industries and brought everything from better transportation to better housing. We can do it again in this economic transformation, by developing a distinctive advantage in highly innovative creative industries, by bolstering the productivity of our competitive manufacturing industries, by transforming and improving productivity and wages in our growing service industries, by establishing a new social safety net system.

There is also necessary to develop a twenty-first century infrastructure that strengthens our urban centers and mega-regions while connecting older industrial centers and rural areas – giving us the scale and speed to compete globally (Roger Martin, Richard Florida, 2009).

Businesses need to develop and invest in strategies that build on a jurisdiction's advantages and to invest in strengthening those advantages through training, capital investments, and other strategic initiatives. Businesses should make these choices for their own benefit, not in response to government directives. For individuals, it means investing in their own capabilities and skills. It also means investing their time and money in local businesses and in local arts, cultural, and charitable organizations.

#### *A macroeconomic approach on crisis management strategies*

A single model for a macroeconomic crisis management cannot be outlined because of the differences in political, economic, and legal systems, as well as the nature and scope of different crises and the availability of different tools. More than that, crises are complex phenomena by their nature, a mix of different approaches being usually taken to manage them. The literature review on the crisis management strategies shows us a number of general guidance lines, as well as some key areas where the strengthening of crisis resolution frameworks would be desirable. The crisis management strategies were revised during the current turmoil, in which the scale and intensity of state support has been virtually unprecedented. The appropriate boundaries for state intervention were revised, addressing the moral hazard implications of the widespread use of official guarantees and bailouts. Although every crisis is different in nature, intensity and many other factors, some important key factors for dealing with the crisis at a macroeconomic level can be outlined:

- *The need for a correct early diagnosis of the nature of the crisis and the adoption of a consistent overall crisis strategy that has the support of the highest level of government;*

- *The importance of the crisis resolution strategy being cast within a sustainable macroeconomic framework;*
- *The need for the state to have adequate tools and instruments to intervene in the system where and when necessary;*
- *The importance of recognizing losses, writing down impaired assets and facilitating the injection of new capital as needed;*
- *The importance of a high degree of transparency and independence in the key decisions regarding the allocation of losses, intervention of firms, and injection of official capital;*
- *The need for the independence of the crisis management strategy from vested political and financial interests;*
- *The need for a high level of cooperation, coordination, and information sharing among key state agencies, ministries, and the central bank;*
- *The need for a clear exit strategy for the orderly unwinding of extraordinary measures.*

According to the steps presented above, a common mistake in the early stages of any crisis is to ignore the signals in the first tremors and respond to them in a relatively empirical manner. This is one of the biggest mistakes that can be done because, for example, the failure to correctly diagnose the systemic nature of the crisis at an early stage can delay the adoption of the appropriate measures to deal with the financial sector weakness, and can damage confidence as the problems worsen and spill over to other sectors. In addition, the misdiagnosis of the problem and the provision of extensive liquidity support and guarantees may risk overwhelming central banks and finance ministries. As a result, both monetary policy and fiscal policy can become overly expansive with adverse implications for the exchange rate and inflation. In addition, extensive liquidity support can lead to a sharp deterioration in the quality of the central bank balance sheet and the need to eventually recapitalize the central bank. Based on these considerations, it is clear why it is important to correctly and quickly diagnose the systemic nature of problems and adopt a coherent overall strategy. A key component of such a strategy is to address in a holistic way the impaired asset and institutional problems in the financial system, and not rely excessively on temporary painkillers such as liquidity support, regulatory forbearance, and government guarantees.

Another important aspect for a best practice crisis management strategy is its transparency. This raises a dilemma though. On the one hand, population are said to be increasingly distrustful of authority, thereby facilitating a response that provides for ‘transparent’ measures of control which are likely not only to provide an incomplete picture of reality, but will be exposed to gaming and manipulation, as well as ‘creative’ behavioural adjustment among those controlled. On the other hand, population are said to be increasingly less likely to follow ‘*authority*’.

Thus, a dilemma appears – many societies today distrust authority, thereby rely on controls with potentially tragic consequences, at a time when social heterogenization makes a concerted response problematic. In other words, the illusion of control breeds further ‘*non-control*’.

Nevertheless, a transparent decision-making can avoid many opinions stating that the measures are inequitable and abusive. The reason why cooperation and coordination among state agencies is critical is based on the desirability of the crisis management strategy addressing in a holistic way the interrelated components of the crisis. For example, a ministry has to perform risk assessment in order to identify the emergencies which may occur in its area of government, prepare a crisis management plan and ensure the implementation thereof in an emergency, form a structural unit in the ministry or designate one of the departments to be responsible for the general organisation of crisis management in the area of government of the ministry, form a crisis management team, determine the crisis management duties of agencies and inspectorates in the area of government of the ministry, plan the use of resources necessary for responding to an emergency, direct the responding to an emergency in its area of government, organise crisis management training in its area of government, perform an assessment in its area of government in order to identify the resources which are necessary for participation in international crisis management.

On the other hand, for example the crisis management committee of a county has to review the risk assessment of the county and on the basis thereof make a proposal for specification of the county plan, review the crisis management plan of the county, make proposals to the county governor concerning the staff of the crisis management team, make proposals to the county governor for the preparation and acquisition of resources necessary for responding to emergencies and mitigation of consequences, make proposals to the county governor for organizing crisis management exercises, co-ordinate the responding to emergencies in the county, make proposals to the county governor for the request of additional

resources and co-ordinate the informing of the population concerning emergencies and the responding thereto.

On an even lower level, the rural municipalities and city governments have to perform the risk assessments of the rural municipalities and cities, designate, on the basis of risk assessments, the enterprises and agencies where emergency plans shall be prepared, take the results of risk assessment into account upon preparation of comprehensive and detailed plans of the rural municipalities and cities, inform the population of possible dangers, organize the preparation of crisis management plans of the rural municipalities and cities, enter into contracts for the use of resources necessary for responding to emergencies, plan and organize crisis management training, form crisis management teams, inform the population of emergencies and the responding thereto, organize the availability of foodstuffs, drinking water and staple goods and services for the population in emergencies, systematize the activities related to health care and social welfare in emergencies and request additional resources from county governors in order to respond to emergencies.

Another important aspect of a best practice crisis management at the macroeconomic level is the exit strategy. These are important especially in circumstances where a range of extraordinary measures have been taken to deal with the crisis. We will take as an example the global financial crisis that has started in 2008. The exit strategy for this crisis requires policy makers to think about the place to which they want to exit, which is surely not to similar incentive structures to those used prior to the crisis. A sound framework requires six very basic building blocks that all jurisdictions should work to have in common. These are:

- *The need for a lot more capital – so that reducing the leverage ratio has to be a fundamental objective of policy. Europe, for example, has a very long way to go in this respect if there is to be some equalization across the globe.*
- *The elimination of arbitrage opportunities in policy parameters to remove subsidies to the cost of capital. This means looking at the way income, capital gains and corporate tax rates interact with financial innovation and derivatives to create concentrated risks and to eliminate ways to profit from such distortions.*
- *The necessity to reduce contagion risk within conglomerates, with appropriate corporate structures and firewalls. This issue is not unrelated to the too big to fail moral hazard problem. It must be credible that affiliates and subsidiaries of large firms cannot risk the balance sheet of the entire group – they can be closed down by a regulator leaving other members of the group intact.*
- *The avoidance of excessive competition in banking/securities businesses and a return to more emphasis on the credit culture banking model.*
- *Corporate governance reform is required.*

The way those companies deal with crisis it is analyzed in the following section.

#### **4.2. Best practice guide - microeconomic approach**

Every company - large or small, publicly traded or privately held - runs the risk of a crisis. Forward-thinking companies across the country and around the world are proactively practicing crisis management. The main actions to be taken in dealing with a crisis on the microeconomic level are:

- *Identifying the crisis*

Proper recognition of the crisis is an important initial step. The crisis could be of a financial or strategic nature. A communication crisis, due to negative publicity of a company, may also affect the company's success.

- *Isolating the crisis*

Part of the process of identifying a crisis is to isolate the cause of the trouble. Often this is done by identifying crisis symptoms and root causes of the crisis. Many times this root cause may not be easily apparent to business teams that are closely tied to an organization, or that have a personal stake in the company. A crisis coach can help an organization to identify root causes of crises by isolating the crisis so that the management of a company can focus its efforts on solving the problem.

- *Crisis communications*

Ahead of employing a crisis communications plan, the company should specify who it's critical to reach in the time of a crisis. Each group or individual may need contacting in a distinct way and might require providing with different information and facts.

- *The employees:* It is vital that every employee is enlightened on what is taking place and how this will change their function in the company. They will therefore, have to be fully informed on

exactly what they need to be doing. It's in addition advantageous to identify a dedicated contact to which people will turn to in the occurrence of an unexpected emergency.

- *Stakeholders*: it is advisable to send out frequent notices, and employ a freely obtainable web page to publish updates so the customers know what is occurring. The managers have to correspond as frequently as they can, and make sure to be as transparent and clear as can be.
- *Government*: Occasionally, the business may need to liaise with local officials. This might be subsequent to a major accident or the release of a hazardous substance. The managers of the company have to make sure they know who to make contact with well before an emergency occurs and to review the company's strategy regularly. As the company grows, develops and changes, aspects of the plan may need to be adapted in line with this.

- *Assembling a crisis management team*

In doing this, the managers of the company have to consider who the primary decision makers are within the organization. Because the crisis is likely not defined when the team is identified, people with varying responsibilities within the organization must be included in the team.

- *Creating a crisis management plan*. A best practice approach on crisis requires creating a *crisis management plan* within a step by step process. Even though every crisis is different, there are a few items that every plan has to include: overview of the plan, description of the plan, plan, recovery strategies, and communications strategy.

- *The first section of a crisis management plan* is going to need to include an overview of the crisis management plan. In the overview, the managers of the company should include information on the plan's mandate. They should include a brief description of the objectives.
- *The second section of the crisis management plan* needs to include a description of the structure, which is what is going to be used to support the business through the crisis period. It should have details on the roles and responsibilities of the employees during the crisis period. Any basic operating principles that apply to the crisis management organization also need to be included in this section of the plan so that it is clear to others how the business will be run during the crisis. The plan itself will include any information relating to the budget for implementing the crisis management plan, while the recovery strategies include critical business functions, external entities, software, and equipment. The communications strategy details any information related to how specific members of the organizations will talk with each other during the event of a crisis. For example, back up communication devices in case the phone lines go down. This section needs to include information on project members, executives, employees, and external parties.

Sometimes the crisis can be avoided if they are forecasted. Crisis forecasting involves examining the processes and procedures of the company, as well as outside factors to determine if that company is heading for a crisis. The best way to deal with a crisis is to avoid it all together, and forecasting impending disaster can go a long way in ensuring the life of a company. Often crisis forecasting can benefit from an outside person or organization who has an objective view, and can see an impending crisis easier than the company can.

## 5. Conclusions

To sum up, we can state that there are three aspects of crisis management that could usefully be strengthened:

- *The tools and instruments available to involve the private sector in crisis resolution,*
- *The ability to credibly impose losses on systemically important financial institutions while keeping them afloat*
- *The approaches used to identify and manage systemic risk.*

When dealing with a crisis, we can state that the private sector is crucial to the governance of the monetary and financial system at national, regional and global levels. Given that private sector activities have increasingly dominated global financial transactions, private financial firms should be integrated into the process of crisis resolution. While the proposition that the private sector is important is widely accepted, what should be the proper balance between private interests and public good is still a question that needs a definitive answer. A thing is certain: private companies themselves have to face different crisis.

## 6. References

- Alas, R. Gao, J. Vanhala, S. (2010) The crisis management in Chinese and Estonian organizations, *Chinese Management Studies*, Vol. 4 Iss: 1, pp.18 - 36
- Anghelache, C. (2010) *România 2009 - starea economica în criza profunda*, Publishing House Economica, Bucuresti, 2010
- Blue R., White J., *Surviving Financial Meltdown: Confident Decisions in an Uncertain World*. Carol Stream, IL: Tyndale House Publishers, 2009, p. 32
- Brecher, M. () *International Crisis Behavior (ICB) Series*, University of California Press
- Bunesco, P. (2900) *Creditul bancar în condițiile crizei economico-financiare globale. Situatia din Romania*, Publishing House All, Bucharest
- Chiciudean, I. Tones V. (2000) *Gestionarea crizelor de imagine*, Publishing House SNSPA, Bucharest Istocescu, A. (2003) Management intraprenorial. Concepte. Studiu de caz, Bucharest, Publishing House ASE
- Chong, K. (2004) Six Steps to Better Crisis Management, *Journal of Business Strategy*, Vol. 25, No. 2, pp. 43-46
- Congleton R. D. (2009) *Notes on the Financial Crisis and Bailout of 2008*, Fairfax, VA: George Mason University, p. 61
- Cutlip, S.M. Center, A. Broom, G.M. (2006) *Effective public relations*, Prentice Hall
- Darling, R. J. (1994) Crisis Managment in Inetrnational Business – Key to Effective Decision Making, *Leadership & Organization Development Journal*, Vol. 15, No. 8, pp. 3-8
- Eliasson, A. Kreuter, C. (2001) *On currency crisis models: a continuous crisis definition*, Conference paper of “X International "Tor Vergata" Conference on Banking and Finance, December 2001
- Gonzalez-Herrero, A. Pratt, C. B (1996) An integrated symmetrical model for crisis-communications management, *Journal of Public Relations Research*, Vol. 8, No. 2
- Hale, J. (1997) A Layered Communication Architecture for the Support of Crisis Response, *Journal of Management Information Systems*, Vol. 14, no.1, pp. 235-255
- James, E.; James, E. H. (2008) Toward an Understanding of When Executives See Crisis as Opportunity. *The Journal of Applied Behavioral Science*, Vol. 44, No. 1, pp. 94-115
- Kash, T., Darling, R. J. (1998) Crisis management: prevention, diagnosis and intervention, *Leadership & Organization Development Journal*, Vol. 19 Iss: 4, pp.179 – 186
- Kash, T.J. Darling, J.R (1998) Crisis Management: Prevention, Diagnosis and Intervention, *Leadership & Organization Development Journal* 19 (4), pp. 179- 186
- Khodarahmi, E. (2009) *Crisis management*, Disaster Prevention and Management, Vol. 18 Iss: 5, pp.523 – 528
- Krugman P. R., *The Return of Depression Economics and the Crisis of 2008*, New York: W. W. Norton & Company, 2009, p. 118
- Nicolescu, O. (2001) Managementul întreprinderilor mici și mijlocii, Publishing House Economică, Bucharest
- Paraskevas, A. (2006) Crisis management or crisis response system? A complexity science approach to organizational crises, *Management Decision*, vol. 44, no. 7, pp.892 - 907
- Pearson, C. M., Clair J.A. (1998) Reframing Crisis Management, *Academy of Management Review*, Volume: 23 Issue: 1, pp.59-76
- Pheng, L. H., Ann, Y. D. (1997) Crisis Management – A Survey of Property Firms, *Property Management*, Vol. 17, no. 3, pp. 231-251
- Pollard, D., Hotho, S. (2006) Crises, Scenarios and the Strategic Management Process, *Management Decision*, Vol. 44, No. 6, pp. 721-736
- Rogers, E. (1995), *Diffusion of Innovations*, 4th Edition, Free Press, USA
- Seeger, M. W., Ulmer, R.R., Snellow, T. (1998) Post-crisis discourse and organizational change, failure and renewal, *Journal of Organizational Change Management*, Vol. 18
- Shaluf, I.M., Ahmadun F. Said, Aini, M. S. (2003) A review of disaster and crisis, *Disaster Prevention and Management*, Vol. 12, No. 1, pp.24 - 32
- Suci, M. C, Picioruș L., Imbrișcă, C. I. (2010) Implications of Asymmetric Information, in the Real Estate Crisis in US, *Economie teoretică și aplicată*, Vol. XVIII (2011), No. 1(554), pp. 176-191
- Venette, S. J. (2003) *Validating the high reliability organization perception scale*, Prentice Hall, 2003

# INTERNAL AUDIT. FINDING SOMEONE GUILTY OR FINDING SOLUTIONS

*SUSMANSCHI Georgiana*

*Ph.D. student, The Bucharest University of Economic Studies, Constanta, Romania, georgiana19iu@yahoo.com*

*CONSTANTIN Nicolae Vasile*

*Ph.D. student, The Bucharest University of Economic Studies, Constanta, Romania,  
nicolae.constantin@medu.edu.ro*

**Abstract:** *The paper concerns about the relationship between internal audit and management, focusing on the role of internal audit within the economic entity, and thus in corporate governance, knowing that the value of a company maximizes in the extent to which managers succeed to identify and harmonize the conflicts of interest between the social partners of the firm, especially between shareholders and managers. What is most important to an internal audit is that it can find, besides the system non-conformities, some possibilities to improve the management system. The paper wants to emphasize that the purpose of an audit is to find solutions, not to find fault or someone to blame.*

**Key words:** internal audit, management, risk management, internal control

**JEL classification:** M10, M14, M42

## 1. Introduction

The audit is a universal function. Although, its best known face regards the financial function, the auditing activity spreads its arms among all functions retrievable in an entity, through internal audit, which covers all functions which contribute to a result determination. A limitation of audit activity to a single compartment, as accountancy, is not recommendable in the context of a globalized society, being preferable a complete verification and certification of the entity's activities (Alexandru and Constantin, 2011).

Internal audit is an independent activity, objective, assurance and consulting, designed to create value and improve an organization's operations. It assists the organization in achieving its objectives by implementing a systematic and disciplined approach in evaluating and improving the effectiveness of risk management, control and governance processes (Bunget, 2009).

Therefore, internal auditing represents a function integrated in the company, when the external auditing represents an independent function whose mission is to certify the accuracy of the accounts, results and financial situations, and more precisely to certify the sincerity and a truthful image of the financial situation and (if we retain the definition of the authorized accountants) to certify the regularization, ingenuity and fair picture of accounts and financial situation.

Internal audit has an important role in assisting the reorganization of the internal control system and in advising general management. The installing of a system in order to prevent fraud remains in the responsibility of the management within the organization and internal audit provides assistance in assessing risks and strategies for corporate control, suggesting the proposals, recommendations and solutions to diminish the threat of fraud, and improve the control strategy.

In today knowledge-based society it can be identified a number of five tendencies, as: globalization, changes in risk management, technological progress, organizational talent and capacities, changes regarding internal audit role. All of these are expected to have an important impact over internal audit during the following years. That's way it is essential the proper understanding of these tendencies, and also of their implications, in such way so that internal audit could supply the help needed in identifying and managing risks; so in the end internal audit has an effective contribution in adding plus value to economic entities (Pop and Bota-Avram, (2009). The internal audit must guarantee the reasonable safety that the operations performed, the decisions made are under control and that in this way it contributes to the improvement of management decisions regarding the achievement of tasks set by companies (Terci, (2009).

Machiavelli's maxim "the one who takes it for just what he thinks is real, but it is not, it surely to reach failure" applied to internal auditor, highlights the danger of preconceived ideas and absolute necessity of practicing validation. Main points that delimit the internal audit definition are: management



assistance, without judging employees, total independency. The internal auditor will assist managers, in that it allows through their opinions and successive approaches, improvement of decisions that are about to be made. The notion of assisting managers finds itself in a permanent evolution. The actual economic crisis excluded any reference regarding affiliation of internal audit and control which was leading to confusions and has been replaced with a proper word: consultant. In that, internal auditor assists, recommends, conciliates, but not decide.

## **2. Internal audit as an attribute of management**

In 1941, JB Thurston (the first president of IIA), made a statement anticipating the amazing evolution of internal audit in management assistance. In 1991, Joseph J. Mossis (the president of IIA in UK) resume the notion of internal audit in more precise terms "It is clear to those working in the internal audit function that it plays a vital role to play, helping lead to grab the reins of control".

Specialists consistently held that the audit is a specific approach and should not be confused with other techniques used to investigate the circumstances of organizations and economic structures, such as: control, examination, inspection, studies, etc. mediation. Indeed, the audit is a particular way of knowledge of the pragmatic reality of the audited entity internal point, based on ex-post study common processes and some specific procedures, from direct observation documents and facts, statistical calculations, diagrams, test compliance, written or oral questioning.

Depending on the scope of application and objectives, we can discuss about the financial audit - accounting, social tax, legal, operational, information, etc.

In terms of relations with the organization's management, we can identify two types of audit: Internal audit and external audit.

Internal audit is "what a manager should do to ensure that it has a good control over situations, if they have time and if they knew how to do " (Renard, 2002). Note that internal audit function management is a profession that does not improvise and as such, must be made by specialists. Internal audit is an attribute of one or more employees working for the benefit of its managers, highlighting the level of mastery over activities and if it finds dysfunction, they can make recommendations for improvement.

The internal auditor is a consultant with autonomy to formulate recommendations, and not a controller, this autonomy is provided by reference standards, methods and tools appropriate to have, but work must be conducted within the rules established.

The auditor should not interfere in the implementation of any corrective measures improvement established, either in achieving them. It should be mention that the internal audit can't assume and be responsible for effectiveness of risk management. That is the responsibility of the top management and operational management.

## **3. Purpose of Internal audit: Finding solutions or finding someone to blame?**

Internal audit can be defined as the last step of the internal control system of an organization. By way of expression, internal audit adds value by estimating the system of internal control, risk research and recommendations provided adjacent to the internal audit report made and sent to the achievement of targets set for the entity.

Internal audit does not provide certainty that there are all no errors in all company's activities. Also,

Cost audit is seen as a cost of imperfect information, information required by shareholders that can be made by audit. In fact, any definition of the audit reveals the need to ensure a party to the transaction flows over internal control. Cost audit and control is the most appropriate given by the cost of acquisition of hidden information by the shareholders.

In any organization, the internal audit function adds value to the extent that is able to bring an extra value of confidence to executive management in achieving the entity's objectives. Equally, , its usefulness is appreciated by the insurance offered to non-executive bodies (such as the Audit Committee and Supervisory Committee) in relation to the adequacy and effectiveness of existing internal control, risk management process and concerning the compliance with best practices on corporate governance.

As a result of an effective internal audit mission, the company's management can see how the processes in the firm are working. It can be seen where you are, how well the system works, how reliable it is, and draw some conclusions about what to do in the future and about the direction you are heading towards. Without doubt, internal audit, together with assessment of suppliers, customer satisfaction management and analysis, is the key in having at least a live management system, if not efficient.

It is highly important that after implementing a management system within an organization to let some time to "ripen" and to employees to enter into their role plays and staff to incorporate new requirements in their daily routine until it puts smoothly. This surely is a relatively difficult, arduous process, which takes time and that usually is not that easy, especially because it is changing some minds. During this period it is preferable not to do internal audits, because things are still a potential 100% and you can draw the wrong conclusions. Unfortunately, in many organizations this does not apply to several reasons that it is pointless to explain.

First, an internal audit should be done when the processes are fully integrated (there can be cases in which a process may not be integrated, from several causes, and then the process should be changed/reviewed), and that should be taken very seriously. Just so, the results of the audit report will be used as relevant information to create future strategies.

The internal audit department audits not a service or a job (quite common error), but the process. This process can encompass several departments, etc., as applicable in all parts of the organization. In order to on-going with an internal audit mission must begin to make a plan, an audit plan, encompassing all processes to be audited, date and place of audit, audited persons and other organization specific observations (if necessary). This plan would be communicated it to all levels and the auditor should ensure that it is approved by top management (if possible, top management would be involved in this plan). The next step represents the audit itself. It usually takes place at the location where the process is mainly to be audited.

Once the audit began, the auditor/auditors have to go through all the process and see if it takes place according to procedures, instructions and policies implemented, and discover this process's non-conformities.

After auditing the persons responsible for the process (not always overlap department managers, in which cases both of the responsible persons must be audited), is very effective to visit the "field" to see how the process is going effectively and talking with other employees who are part of the process seems to be a good idea. The auditor should not approach a hard tone, is not constructive.

The auditor should not be referred as a police-officer, ready to issue sanctions and punish the guilty ones. Internal auditor must find the ideal way to communicate with all departments of the economic entity, in order to understand processes that occur in the firm. A feature of internal auditors is that they have a thousand eyes, but not a heart. Why is that? For being part of the company, with a great responsibility on their shoulders, the internal auditors still have a relative independence given by their statute as employee of the company.

The auditor has to remember/take in consideration that all employees make efforts (large or small) to integrate the new process and the purpose of an audit is to find solutions, not to find guilt/someone to blame for the non-conformities. In that aspect, the auditor would talk to as many people about how they see the process, what benefits they believe are, if they see improvement process, how they feel with the new duties, if they feel any difference than it was before (in cases of changes of processes).

In other words the auditor has a responsibility to collect as much information to help the continuous improvement process.

Internal audit is complete when all preventive and corrective actions were completed, and nonconformities resolved or removed from the system.

#### **4. Internal audit and risk management**

Internal audit and risk management have the same goal: the control of risk. There are various roles for the internal audit in respect of risk management. The main limitations of internal audit in respect of risk management regards assuming risk management tasks.

Objectives of internal audit functions differ between organizations, but the main objective should be to assess and improve the efficiency and effectiveness of the management to maintain and improve the internal control system. Objectives might be:

- providing assurance on the adequacy of control system;
  - providing assurance on the adequacy of activities;
  - advising management.
- Risks to internal audit achieving these objectives could be:
- not testing enough to provide the assurance needed;
  - incorrect advice.

Risk management could be defined as the activities directed towards the management of opportunities and adverse effects.

The board of the organization is directing the risk strategy, the risk appetite and the risk treatment choices. Risk appetite means how much risk the company wants to take in the achievement of its objectives. Risk treatment means choosing the right options to mitigate the risk.

Within the organization the board, the executive management, the risk committee, the experts and the employees are responsible for the risk management. Nevertheless risk is considered to be the responsibility of operational management.

Important benefits of risk management are:

- ☐ increased likelihood of achieving corporate objectives;
- ☐ reduced cost of risk;
- ☐ calculated risk taking.

Therefore risk management should be embedded in the operations of the organizations with appropriate monitoring. Business processes should be supported by risk management. The board should have an overall assessment of the contribution of risk management to the function of the business (Constantin and Alexandru, 2011).

One of the main issues regarding risk management is to make sure that the key risks are taken into consideration and that the management and the board of the organization take action as needed. In order to accomplish these important corporations set up a risk management committee, whose main roles are to:

1. report on the key risks to the board;
2. review how the major risks are managed;
3. promote the best practice in risk management within the organization.

The main risk management strategies are to:

- avoid/transfer it – get rid of the activities giving rise to the risk. Avoiding an activity is the answer to a risk that cannot be controlled. Some organizations, for example, taxi companies have identified no-go areas where their cars will not go. Public sector organizations instead do not have sometimes the choice of avoiding a risky activity.
- reduce/exploit it – insure against the risk; Insuring against a risk will reduce the financial impact but is not going to solve the problems created by business discontinuity. Nowadays, insurers require organizations to treat risks using internal controls as well as insuring against it. The insurance might cover above a certain level of excess.
- retain it – implement controls to manage the risk.

The greatest number of risks will be retained. Internal controls will be implemented to mitigate reduce either the probability or the impact. Organizations retain risks where controls have brought them to accepted residual levels.

There are many roles that internal audit can fulfil in respect of the risk management process implemented within the organization.

Today, internal audit assumes at least two important roles in respect of the risk management. First, internal audit can act as an advisor helping the organization in respect of risk awareness. This can be done by improving the management understanding of the major risks facing the organization. It should be mention that the risk management process can be used by internal auditors in identifying areas for review. In these ways the internal auditors can focus their activity on the key systems and controls within the organization.

Second, internal auditors can act as trainers in risk management workshops. In this way internal auditors aid line managers understand better organizational risks and controls. This is how internal audit can help the managers to identify various risks.

Nevertheless, we redraw attention in the internal auditor's statute: that the internal audit can't assume and be responsible for effectiveness of risk management, that being the responsibility of the top management and operational management. However, assurance on the risk management process can be provided by the internal audit. During the assessment activities, internal audit can also give advice on this field.

In those organizations that have an internal audit function and risk management process it is vital to be sure that there is no duplication of work. Therefore, it is crucial that the roles of each function is made clear to stay away from unjustified overlap and, more importantly, to avoid conflict of interests.

## 5. Conclusions

Ignoring the internal audit function can lead to real disasters in financial terms and not a few have been cases where the collapse of giant companies resulted in a number of negative chain and

entailed thousands and sometimes even millions of creditors, suppliers, employees and investors injured, with effects that have lasted for years.

Though the role of a skilful risk management it was clearly shown and extolled, many commissions and institutions analysed the main causes of the outbreak and spread of the crisis reaching to a common point: a faulty risk management had a determinant contribution in generating the actual crisis. So, one of the negative elements identified in companies strong affected by the economic crisis, was the managers failure in managing risks, in identifying them, mainly because of a high complexity of the services provided and the risky nature of the business. Therefore, revising procedures regarding risk management process, in order to improve its effectiveness, becomes an imperative demand.

However, as noted, none of these features, relatively modern, of an economic entity cannot timely identify a potential crisis on its own, much more could not manage it. Every department, every function that is found in a company must be interwoven with other functions, there are interdependent. We, humans are the perfect example of interdependency. A person is not built to stand alone, needs connections with others in order to create something, needs communication, no man could ever build The Great Wall by itself. We need each other. So the departments of an economic entity; cannot exist separately, cannot develop separately, they must communicate in order to deal with a dynamic economic environment. Can we nominate which one of the body components is more important? Can we tell which company department, or function is the most important? No. They must function as a whole. If one of the departments misfires, is reflected in all business activities. Solution is found in employee training, in improving their future as professional with the hope that significant risks will not only be discovered in time, but managed in an effective and fair way.

## 6. References

- Alexandru, G.; Constantin, N.V. (2011) Internal Audit- Pillar of Corporate Governance, *Ovidius University Annals: Economic Sciences Series*, Vol. XI, 1, p. 69-72.
- Arens, Alvin A.; Elder, Randal J. (2010) *Auditing and assurance services : an integrated approach*. Prentice Hall.
- Bostan, I.; Grosu, V. (2010) The Role of Internal Audit in Optimization of Corporate Governance at the Groups of Companies, *Theoretical and applied Economics*, 2, p. 63-84.
- Bunget, O.C.; Florea-Ianc, Z.; Ghiță , M.; Nicolau, C.; Pereș, C.E.; Pereș, I. (2009) *Corporate Governance and Internal Audit*. Mirton Publishing House.
- Constantin, N.V.; Alexandru, G. (2011) Internal Audit and Risk Management, *Ovidius University Annals: Economic Sciences Series*, Vol. XI, 1, p. 434-437.
- Cretu D. (2011) Raportul între auditul intern și auditul extern în contextul costului nevoii de asigurare, *Revista Audit financiar*, 3, p.14-18.
- Gallegos F. (2011) *Safeguarding auditor objectivity: corporate governance practices must not compromise auditor independence*. Available at [http://findarticles.com/p/articles/mi\\_m4153/is\\_5\\_61/ai\\_n6332698](http://findarticles.com/p/articles/mi_m4153/is_5_61/ai_n6332698).
- IIA (2003) Internal Audit Independence and Corporate Governance A Research Survey of and for IIA Chicago Chapter Members March 24.
- Jacques R. (2002) *Theorie et pratique de l'internal audit*. Editions d'Organisation, Paris, France,
- Pop, A.; Bota-Avram, C. (2009) Global economic crisis: could internal audit prevent this crisis?, *Financial Audit*, 7, p. 14 – 21.
- Terci, N. (2009) Internal audit and it's controversies. Opinions, *Financial Audit*, 7, p. 38 – 43.
- Toader, S. (2009) Management during crisis period: top managers' priorities, *Financial Audit*, 7, p. 3 – 10.

# IMPROVING THE EFFICIENCY OF LOGICAL FRAMEWORK APPROACH AS A PROJECT MONITORING AND EVALUATION INSTRUMENT

**TACHE Florin**

*Faculty of Management, The Bucharest University of Economic Studies, Bucharest, Romania*

*E-mail: florin.tache@yahoo.com*

**Abstract:** *The paper focuses on important features of Logical Framework Approach (LFA) due to which the mentioned classical project management tool is lasting for more than 40 years in project management practice, proving to be a more requested instrument than ever by different international financing bodies. The article emphasizes the main elements of building a Logical Framework Matrix (LFM), highlighting its connexions with the process of project monitoring and evaluation. Also, the paper presents the main causes of recurrent failures of the method, and some improvement measures, so that LFA could become more powerful as a project management tool.*

**Key words:** Logical Framework Approach (LFA), Logical Framework Matrix (LFM), project management, project monitoring and evaluation, project planning.

**JEL Classification:** H43, M19, O22.

## 1. Introduction

The Logical Framework Approach (also regarded as Logframe Approach or simply LFA) is a project planning, monitoring and evaluation tool, which was initially used within development projects, and afterwards, becoming a wide accepted tool within project management processes.

The method was firstly adopted as a project planning and appraisal tool for the development projects promoted by USAID (United States Agency for International Development), in late 1960's. The beginnings of the method are closely related with the emergent theories in management amongst which the most representative was the *management by objectives* (MBO) theory. Since then, the LFA (and its main outcome – the LFM) has been intensively promoted, coming to play a central role in the planning, monitoring and evaluation interventions (projects) during the last 40 years.

Under the recent circumstances of a more and more dynamic business environment, the method has undergone several recurrent failures, which made it vulnerable for the main stakeholders of the project. In this context, it is necessary to identify a set of strategic activities aimed to ensure the compatibility of the method with the main elements of companies' corporate culture (stakeholders' commitment, corporate social responsibility, organizational culture, business ethics, environmental commitment, social awareness).

Thereby, many authors have tried to improve the Logical Framework Matrix, either by building more complex structures (Couillard, et al, 2009), either by combining the method with other instruments and techniques for project monitoring and evaluation.

## 2. Background Research

Even if the LFA has become universally known, it is far from universally liked. It has been the subject of much criticism over the years, concerning both the theoretical basis of the approach, and the way it is applied in practice (Bakewell & Garbutt, 2005).

During its evolution, the LFA has come to encompass some of the best-known project management instruments and management techniques, such as stakeholders' participation, participatory monitoring and evaluation features, problem tree development, solution tree development, SWOT analysis, cost-benefit analysis, culminating with the development of the Logical Framework Matrix (LFM) which was initially used for communicating the *theory of change* within the project stakeholders. Nowadays, LFM is used for breaking down the logic of the project strategy into a chain of *conditional causalities* (Crawford & Bryce, 2003).

From a managerial perspective, LFA involves several characters which provide a full and complete overview on a project (Walsch, 2000) during its entire lifecycle, as follows:

- a system for analysing a project's potential problems and constraints;
- a system for assessing a project management's team needs and expectations;
- a system for providing an objective – resources causality;
- a system for selecting the most suitable implementing alternative;

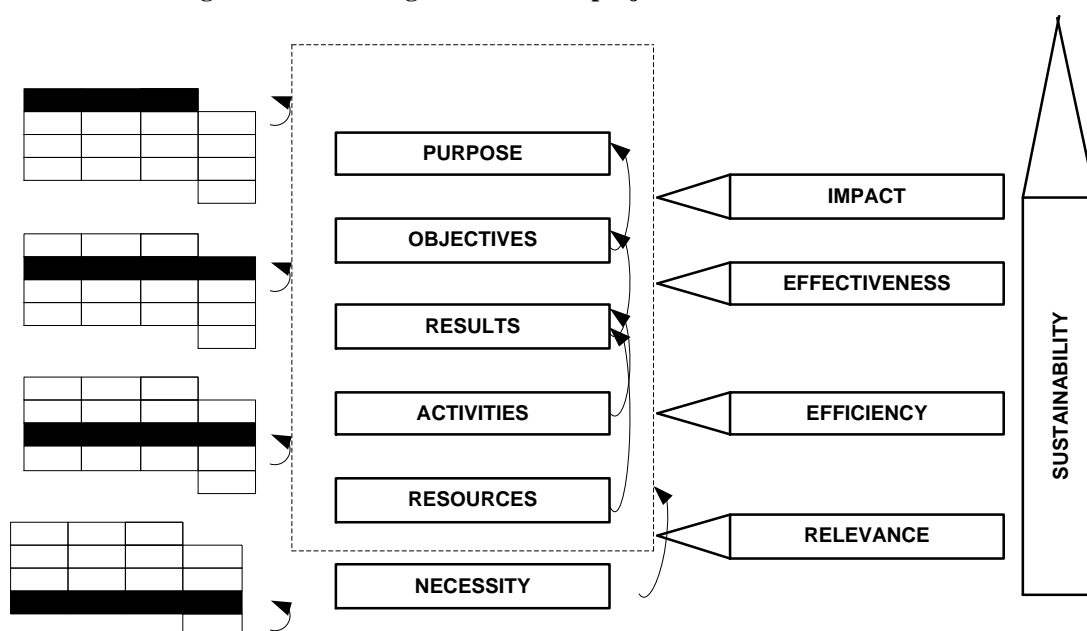
- a system for effective project evaluation, appraisal and monitoring.

As shown, LFM involves a systemic approach upon the main components of a project (regarding objectives, goals, results, activities, outputs and resources) (Gasper, 2000), on which are being made certain assumptions and are being analysed certain risks.

Under these circumstances, it is useful to distinguish between the LFM - the matrix which summarises the main elements of the project and connects them to each other – and the LFA – the overall process by which the elements which go into the matrix are formulated (Dale, 2003).

Nowadays the Logical Framework Approach was adopted as a planning and monitoring method both by the European Union and the main worldwide financing bodies. Regarding the projects financed within European Union's operational sectoral programs, the management authorities has already connected the projects' assessment criteria (impact, effectiveness, efficiency, relevance and sustainability) with the main elements of the matrix, as shown in *Figure 1*.

**Figure 1: Connecting LFM with EU project assessment criteria**



Source: (Adapted from European Commission, 2004)

### 3. Building the LFM: The Vertical and Horizontal Logic

The LFM is a table which summarizes 16 different categories of information, usually arranged as shown in *Figure 2*.

**Figure 2: Logical Framework Matrix format**

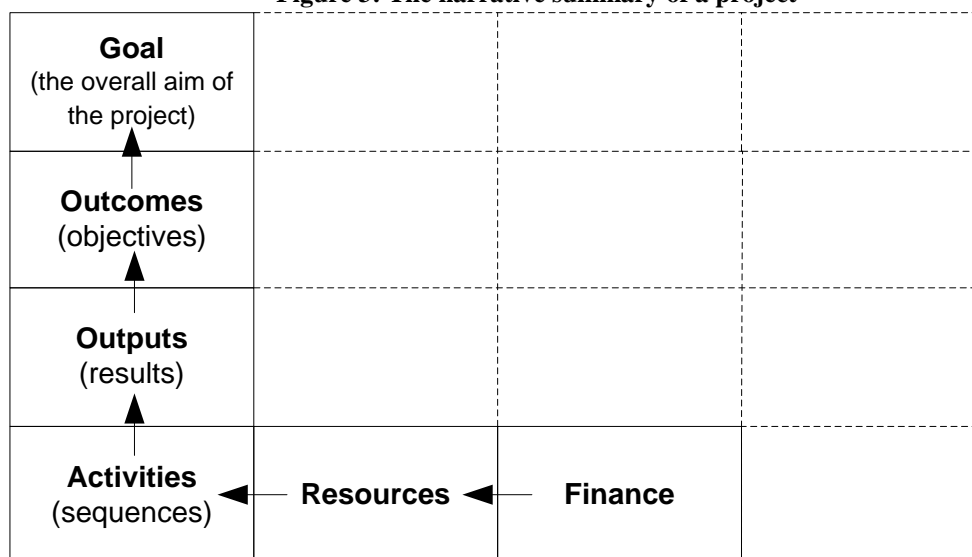
	Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assumptions
<b>Goal</b> (the overall aim of the project)	1.	15.	16.	
<b>Outcomes</b> (objectives)	2.	13.	14.	8.
<b>Outputs</b> (results)	3.	11.	12.	7.
<b>Activities</b> (sequences)	4.	9.	10.	6.
				5. Pre-conditions

Source: (Adapted from Bakewell & Garbutt, 2005)

Besides the logical succession of placing the information into the matrix (given by the numbers mentioned in each cell of the LFM), there are three main issues which are important for a project's stakeholder (and also for the financing bodies, which request more and more frequently a LFM before providing financial support for a project): *the narrative summary*, *the vertical logic* and *the horizontal logic*.

*The Narrative Summary*, as shown in Figure 3, represents the strategic background of the project, explaining the logical succession of a project's stages: financing ensures the attraction of resources within the project; the existence of resources ensures the progress of the activities; the completion of the activities generates the expected outputs; the outputs lead to the attendance of the expected outcomes; finally, the achievement of the expected outcomes leads to the achievement of the overall objective of the project.

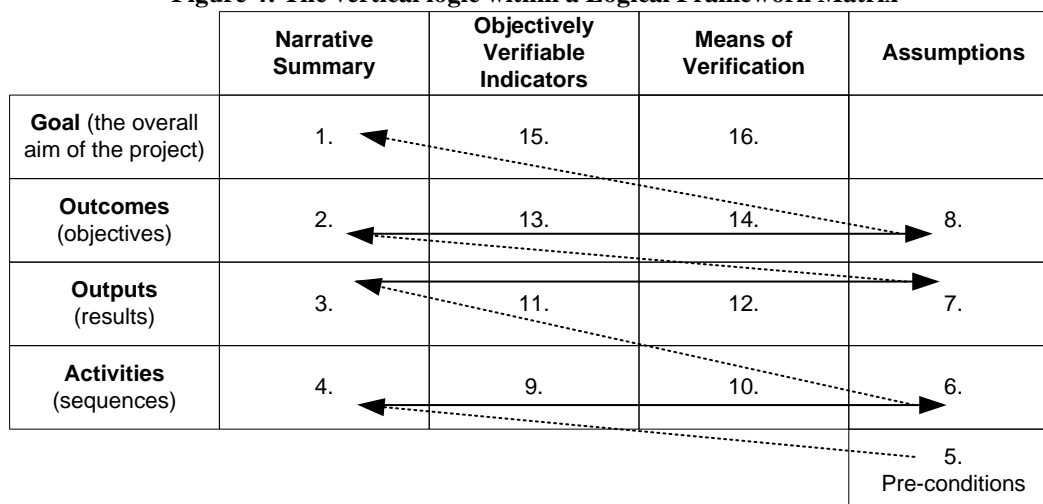
**Figure 3: The narrative summary of a project**



Source: Author

*The Vertical Logic*, as shown in Figure 4, describes the causal link between different levels of the project, stating foremost a hierarchy of objectives (Bell, 2000), according to which inputs ensure the completion of the activities, activities deliver outputs, which contribute to outcomes, which help bring about the overall goal of the project. The whole succession is viable, only if the assumptions specified on the last column of the LFM are being matched. Moreover, the vertical logic illustrates the strategic project management process, which involves the advancement from a lower strategic level to a higher strategic level within project structure. Also, the vertical logic provide useful information about the steps a project should follow from the stage of an idea to the final completion.

**Figure 4: The vertical logic within a Logical Framework Matrix**



Source: Author

*The Horizontal Logic*, as shown in *Figure 5*, describes both how progress against each objective can be assessed (indicators and means of verification) as well as the external factors (assumptions and risks) which might affect whether the reaching of the objectives will contribute to the next level. The horizontal logic does not focus on project progress but on cooperation relations established at each strategic level of the project.

**Figure 5: The horizontal logic within a Logical Framework Matrix**

	<b>Narrative Summary</b>	<b>Objectively Verifiable Indicators</b>	<b>Means of Verification</b>	<b>Assumptions</b>
<b>Goal</b> (the overall aim of the project)	1.	15.	16.	
<b>Outcomes</b> (objectives)	2.	13.	14.	
<b>Outputs</b> (results)	3.	11.	12.	
<b>Activities</b> (sequences)	4.	9.	10.	

Source: Author

#### **4. The Logical Framework Approach and the Monitoring and Evaluation Processes**

The **monitoring** process is being regarded by one of the most important project financing bodies, World Bank, as *the continuous assessment of project implementation in relation to agreed schedules and use of inputs, infrastructure and services by project beneficiaries* unlike the **evaluation** process, which is regarded as *the periodic assessment of relevance, performance, efficiency and impact assessment (expected and unexpected) of the project in relation to stated objectives*.

There are three main types of **monitoring** processes which are susceptible to be associated with the life cycle of a project or program (Sadler & Davies, 1998), and especially with the monitoring of the social and environmental non-quantifiable objectives.

The first category of monitoring refers to **baseline monitoring**, which is regarded as the measurement of economic, social and environmental variables during a representative pre-project period to determine existing conditions, ranges of variation and process of change (Reeve, 2002).

The second category of monitoring is regarded as **impact monitoring**, encompassing the quantification of the variables during project development and operation, to determine changes that may have been caused by the project (Sadler & Davies, 1998).

The last category of monitoring is regarded as **compliance monitoring** and takes the form of periodic sampling and/or continuous measurement of different economic or social parameters (Wiersma, 2004).

Even if we consider previous models of project life cycle, such as Stackenbruck's system life span (Stackenbruck, 1981), or Cavendish and Martin's contract project life cycle (Cavendish & Martin, 1982), or more recent approaches, such as PMI Standard Committee's sample generic project life span or Cooper, Edgbert & Kleinschmidt's Stage-Gate process (Cooper et al, 2001), monitoring should be taken into account in each of every major stage of project development, including also pre-project and post-project stages.

Comprehensive monitoring might be used as a holistic component of responsible life cycle environmental management of large investment projects. The main components of a monitoring process include, but are not limited to: establishing baseline conditions, documenting, managing experienced impacts, evaluating the effectiveness of measures and validating impact prediction techniques (Archibald, 2003)

Similarly, **evaluation** processes involve the application of rigorous methods to assess the extent to which a project has achieved its defined objectives (Pollack, 2007), while being regarded as a set of



activities aimed to determine as systematically and objectively as possible the relevance, effectiveness, efficiency and impact (both intentional and unintentional) of a project in the context of its stated objectives. Just as the monitoring process, the evaluation can be divided into three types of evaluation: **ex-ante evaluation**; **mid-term evaluation** and **ex-post evaluation**, proving the continuity of the mentioned process.

If analysing the Logical Framework Matrix, it can be easily noticed that beside the first column of the matrix (the narrative summary, which has already been discussed) and the last column (the assumptions column, which encompasses the degree of risk and uncertainty of the project), the second and the third columns of the matrix provide the project monitoring and evaluation background through LFM.

Therefore, the second column includes all the *objectively verifiable indicators* (benchmarks and key performance indicators) which are susceptible to be used in project monitoring, while the third column, which includes the *means of verification*, is supposed to provide the most suitable mechanisms for performing an objective and independent evaluation of the project.

Despite its apparently popularity and easiness to use, the LFA is neither the best nor the most used instrument for performing the monitoring and evaluation of a project. According to Gasper (2000), a major pitfall is hoping to define an approach as essentially good or essentially bad. In a previous paper, Gasper (1997) stated as a result of many empirical studies, that LFA declines as a project moves from project design through the ex-post evaluation.

Under these circumstances, the author will emphasize the main elements which generate the lack of efficiency of using the LFA as a tool of monitoring and evaluation of the project, along with a set of solutions for strengthening the power of this instrument within project management.

## **5. Improving Logical Framework Approach within Project Monitoring and Evaluation Processes**

According to the recent theoretical approaches of LFA, there are four main situations generating the lack of efficiency in the process of using LFA as a powerful project monitoring and evaluation tool.

The first situation is called *logic-less framework approach syndrome*, and states that some LFAs or LFM are not relevant, as they are not paid the necessary attention. Thus, LFM for example is used only because the investors demand it, while, in reality, project managers believe this is a useless and time consuming management tool.

As a consequence, they work anachronistically, by developing the LFM only after the entire project has been designed. Therefore, instead of using LFM as a project planning, monitoring and evaluation tool, project managers tend to use it as an abstract of a project which has already been articulated. Under these circumstances, the LFM not only is illogical, but irrelevant as well.

In order to eliminate the logic-less framework approach syndrome, the author highlights three possible ways of action, as follows:

- developing the LFM by specialists who entirely believe in Project Cycle Management (PCM) or Goal Oriented Project Planning (ZOPP) - which is an advanced version of LFM;
- motivating staff to apply correctly the principles of project management during each stage of a project lifecycle;
- promoting participatory project management and involving all the stakeholders in building up the LFM.
- promoting the use of information technology in developing LFM, by importing certain information from Microsoft Project or other dedicated project management software;
- providing training for project managers, in order to make them understand the benefits of applying correctly LFA principles and the improvements in project monitoring and evaluation, which are brought about by the correct use of LFA.

The second situation is called *jamming framework approach syndrome*, and states that some project managers tend to overestimate the role of the LFM and to encompass in a single 16-cell diagram a lot of information, which slows down the logical path of the project.

This case is specific for complex projects, where the LFM developers' possess strong theoretical skills for developing a LFM, but the lack of practice does not make them capable to understand which are the most important information and which are susceptible to be included in each cell of the matrix. In order to eliminate this syndrome, the author emphasizes some possible ways of action, as follows:

- developing the LFM by specialists who posse both theoretical and practical background in project management, especially in PCM, ZOPP or LFA;
- asking an external project management expert if he is capable to understand the vertical and the horizontal logic of the project, only by analyzing the LFM;

The third situation is called *logic-lack framework approach syndrome*, and states that some LFA developers tend to omit some critical features which will very probably affect the project. In this case, most omissions refer either to resources or the assumptions of the project.

The situation is critical, as many projects may fail recurrently if critical elements are not taken into account when implementing the project. In order to eliminate this syndrome the author adds to the previous statements regarding the jamming framework approach syndrome some other possible ways of action, as follows:

- developing participatory management approach during the entire project lifecycle;
- using the participatory management and evaluation of the project;
- defining key performance indicators and benchmarks for each activity of the project;
- connecting each activity with one or more specific outputs, and analyzing if the succession of these outputs builds up the full logical path of the project;
- combining LFA with other project planning and monitoring tools, such as Program Evaluation and Review Technique or Critical Path Method.

The fourth situation is called *logic-lock framework approach syndrome*, and states that LFA developers are not flexible enough to see the LFM as a helpful instrument for their activity. Not all projects can be summarised in a 16-cell matrix and not all LFM should have the same configuration as shown in theory. Each project manager should adapt the LFM according to his specific needs, so that he attains a logical flow of the project.

By approaching LFM as a rigid structure, many LFM developers get locked in a dangerous pattern, which don't allow them to use the LFM as a helpful project management tool. In order to eliminate this syndrome we add to the previous statements, considered to be universally valid, some new features, which should be taken into account when building-up a LFM:

- stimulating innovation and creativity within project management team;
- organizing brain-writing meetings;
- developing flexible LFM formats, which allow project managers to use their creativity in order to achieve better results; one of this flexible LFM formats is represented by LFM-M, developed by Couillard et al (2009), who suggested a seven-step approach leading to the development of the Logframe-Millennium (LF-M), a five-column and four-line matrix describing major project commitments and providing an overall understanding of the project.

## 6. Conclusions

Since 1969, when the Logical Framework Approach (LFA) was firstly developed by Practical Concepts Incorporated and used by USAID, this instrument became a core component of a larger set of project management tools, used both for project planning, as well as for project monitoring and evaluation.

Despite several recurrent failures, LFA still plays the central role in project management lifecycle, providing a convenient overview of a project objectives, results and activities.

The literature has identified certain weaknesses of applying the method, which has generated, over the years, contradictory points of view regarding the method's effectiveness.

If we assume that there are four main sources of failure in using LFA in the project planning, monitoring and evaluation processes, we could identify some alternatives for preventing further LFA failures, in order to improve its performance and relevance as an essential tool for effective project management.

In our opinion, a further analysis is requested, in order to identify which are the critical cells of the matrix, which usually generate failures, and afterwards in order to recommend some actions for reducing their incidence.

We also recommend developing a software which allows the development of LFM's as well as the import of relevant data from other project management software applications used within the project management process.

## 7. Acknowledgements

This work was co-financed from the European Social Fund through Sectoral Operational Programme *Human Resources Development 2007-2013*; Project Number POSDRU/107/1.5/S/77213 „Ph.D. for a Career in Interdisciplinary Economic Research at the European Standards”.

## 8. References

- Archibald, R.D. (2003) *Managing High-Technology Programs and Projects*, 3<sup>rd</sup> Edition, Project Management Institute, PA, John Wiley and Sons Ltd Publishing House, San Francisco, United States of America.
- Bakewell, O., & Garbutt, A. (2005) *The Use and Abuse of the Logical Framework Approach*, SIDA, Stockholm.
- Bell, S. (2000) Logical Frameworks, Aristotle and Soft Systems: A Note on the Origins, Values and Uses of Logical Frameworks, in Reply to Gasper, *Public Administration and Development*, 20(1), p. 29-31.
- Cavendish, P. & Martin, M.D. (1982) *Negotiating and Contracting for Project Management*, Project Management Institute, PA, John Wiley and Sons Ltd Publishing House, San Francisco, United States of America.
- Cooper, R.G., et al, (2001) *Portfolio Management for New Products*, Cambridge, MA.
- Couillard, J., Garon, S., & Riznic, J. (2009) The Logical Framework Approach – Millenium, *Project Management Journal*, 40(4), p.31-44;
- Crawford, P., & Bryce, P. (2003) Project Monitoring and Evaluation: A Method for Enhancing the Efficiency and Effectiveness of Aid Project Implementation, *International Journal of Project Management*, 21(5), p. 363-373.
- Dale, R. (2003) The Logical Framework: An Easy Escape, a Straitjacket, or a Useful Planning Tool?, *Development in Practice*, 13(1), p. 57-70.
- European Commission. (2004) *Project Cycle Management Guidelines*, available at [http://ec.europa.eu/europeaid/multimedia/publications/publications/manuals-tools/t101\\_en.htm](http://ec.europa.eu/europeaid/multimedia/publications/publications/manuals-tools/t101_en.htm).
- Gasper, D. (2000) Evaluating the Logical Framework Approach Towards Learning-Oriented Development Evaluation, *Public Administration and Development*, 20(1), p. 17-28.
- Gasper, D. (1997) *Logical Frameworks: A Critical Assessment Managerial Theory, Pluralistic Practice*, The Hague, Institute of Social Studies, available at <http://repub.eur.nl/res/pub/19007/wp264.pdf>.
- Pollack, J. (2007) The Changing Paradigms of Project Management, *International Journal of Project Management*, 25(3), p. 266-274.
- Sadler, B., & Davies, M. (1998) *Environmental Monitoring and Audit: Guidelines for Post-Project Analysis of Development Impacts and Assessment Methodology*, Centre for Environmental Management and Planning, Aberdeen University, Aberdeen.
- Stackenbruck, L.C. (1981) *The Implementation of Project Management*, Project Management Institute, PA, John Wiley and Sons Ltd Publishing House, San Francisco, United States of America.
- Reeve, R.N. (2002) *Introduction to Environmental Analysis*, John Wiley and Sons Ltd Publishing House, San Francisco.
- Walsch, A. (2000) *Introduction to LFA*. Global Environment Facility Council, Berlin.
- Wiersma, G.B. (2004) *Environmental Monitoring*, University of Maine, CRC Press Publishing House, Orono, Maine.

# CONNECTING POLLUTION ABATEMENT COSTS TO THE DYNAMICS OF ECONOMIC INSTRUMENTS FOR POLLUTION CONTROL

ȚĂPURICĂ Oana-Cătălina

Teaching Assistant, Faculty of Management, The Bucharest University of Economic Studies, Bucharest,  
Romania, E-mail: oana.tapurica@yahoo.com

**Abstract:** The paper focuses on identifying relevant connexions between the most popular economic instruments for pollution control (environmental taxes, compliance fees, subsidies, deposit-refund schemes and tradable permits) and the main components of the aggregate pollution abatement curve (the cost of direct damage curve, the cost of avoiding damage curve, the cost of compliance curve and the cost of pollution control curve). Also, the paper emphasizes which are the main constraints in using effective economic instruments aimed to ensure both the decrease of the aggregate pollution abatement costs, as well as the reduction of the maximum allowable pollution level.

**Key words:** economic instruments, environmental costs, pollution abatement costs, pollution control, tradable certificates.

**JEL Classification:** Q52, Q56, Q59.

## 1. Introduction

Economic instruments, which emerged in early 1990's, gradually replaced the classical pollution control and prevention instruments, as they repealed the weaknesses of the classical tools and provided companies with a higher degree of autonomy in deciding how to comply with environmental constraints under economic efficiency circumstances.

Moreover, according to Austin (1999), economic instruments not only reduce the information burden on regulators, but also provide potential revenue sources for states or governments, as well as they provide greater flexibility in dealing with emission sources.

Taking into account that *economic instruments for pollution control* are basically designed to restore the link between resource scarcity and price (Staudte & Karcher, 2001) and that they are an expression of a market failure (Convery & Redmond, 2007), the paper emphasizes that decisions regarding their use as *a strategic option* related with the companies' efforts to reduce negative impacts on the environment which are summarized by the *pollution abatement curves*.

The paper also reveals that a single economic instrument for ensuring pollution control may prove insufficient versus using a mix of economic instruments, but more efficient than using none.

## 2. Background Research

In economic terms, pollution is being regarded as a negative *externality*. When external effects are significant, markets will be inefficient, and economists have considered several broad classes of economic instruments to correct the inadequacies (Austin, 1999).

According to this assumption, economic instruments were developed in order to avoid the market failure (Wiebe & Dick, 1998), by placing a cost on the factors which determine the negative impact on the environment.

As long as economic agents are bind to pay for their externalities, determining the process of internalizing the externalities (Montero, 2005), they are susceptible to become more concerned about heading the decision-making process towards reducing both the negative impact on the environment, as well as the pollution abatement costs (Gray & Shadbegian, 2004).

The most popular economic instruments used for pollution control that have already proven their strengths and weaknesses are: *environmental charges, fees or taxes, compliance fees, subsidies, deposit-refund schemes and tradable permits*.

The mentioned economic instruments, which are usually regarded as macroeconomic features (Swensson, 2001), are operating on one or more of the pollution abatement curves, which are describing the aggregate pollution abatement curve. Our research assumes the similarity between the economic instruments defined as macroeconomic policy tools and the same economic instruments approached from the economic agents' point of view.

Similarly, the pollution abatement curve, designed as a macroeconomic function describing the

environmental costs of a country (Brechet & Jouvét, 2001), can be considered an aggregate function which possess, as components, the pollution abatement curves which are specific to each economic agent. In this context, our further analysis will be focused on the microeconomic approach of both economic instruments and pollution abatement curves.

Therefore, the pollution abatement costs can be divided into four categories (Brechet and Jouvét, 2001; Kelly, 2003), as follows:

- *cost of direct damage* - which includes the cost of all the irreversible damages produced upon the environment, as a result of the economic activity (accidental spills, uncontrolled explosions, gas emissions) and is represented through a mixture between a linear function and an U-inverted function, growing since the beginning of the economic development of the company until it adopts a non-polluting industries development strategy (Oikonomu, et al., 2008);
- *cost of avoiding damage* - which includes all the pro-active financial measures taken by economic agents in order to prevent a direct damage (contingency plans, pollution provisions, protection equipment), and is represented through an exponential function, growing since the beginning of the company economic development process;
- *cost of compliance* - which includes all the expenses made by an economic agent or by a country in order to come into line with the environmental regulation (pollution fees, investments in new technology, investments in purchasing green certificates or other tradable permits) or to keep the pollution level below the maximum allowable limits (OECD, 1997)
- *cost of pollution control* - which includes the cost of monitoring the emissions, so that the maximum allowable limits won't be exceeded (EMS implementation, EMAS implementation, Environmental Strategic Plans) and is represented through a constant function until the pollution level exceeds the maximum allowable limits and afterwards follows the direct damage curve trend.

The scientific literature usually approaches economic instruments and pollution abatement curves separately, without interconnecting them. However, there is some evidence proving that the relationship between the two concepts was analyzed (for example, there had been stated a relationship between the tradable permits and the pollution abatement costs).

According to the Government of Canada, permit trading is an economic instrument used to create the pollution market, in which companies facing high marginal abatement costs buy permits (emission rights) from companies operating at low marginal abatement costs, thereby minimizing the total costs of pollution abatement curve.

In this context, the paper emphasizes the intimate relationship between the aggregate abatement curves and the mix of economic instruments which are being used in order to minimize the negative impact of the economic activities upon the environment, both by showing how the economic instruments can influence the aggregate pollution abatement curve, and also by exercising a specific influence on one or more of the pollution abatement costs.

### **3. Linking Economic Instruments for Pollution Control with Pollution Abatement Costs**

Among the five economic instruments which were mentioned, two of them (environmental charges and tradable permits) are in a tight relationship with all the functions composing the aggregate pollution abatement curve, and the last three of them (compliance fees, subsidies and refund schemes) are in a tight relationship only with some of the functions composing the aggregate pollution abatement curve.

#### **a. Linking environmental charges with pollution abatement costs**

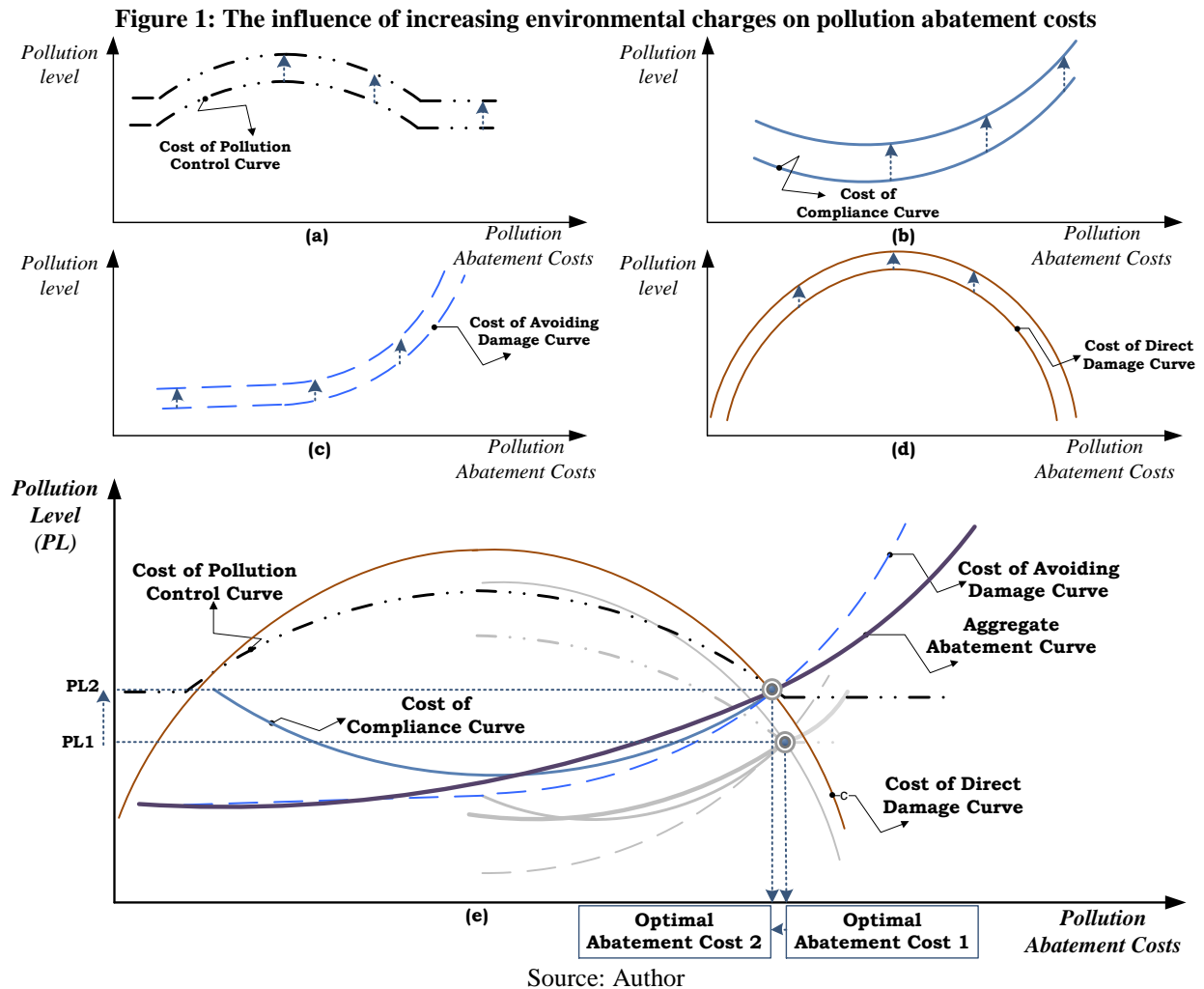
Further, it has been assumed that each of the economic instruments for pollution control is susceptible to generate changes in pollution abatement costs, and also to determine a lower optimal abatement cost. *Figure 1* emphasizes a possible shift in pollution abatement costs, generated by a higher level of environmental charges.

Assuming each company pursues the reduction of optimal abatement cost, an increase of environmental charges and fees will lead to a higher pollution level.

Increasing environmental charges leads to:

- the increase of the pollution control costs (as they are strongly related with the direct damage costs – as shown in *Figure 1a*);
- the increase of compliance costs (considering the fact that companies should invest or pay more in order to comply with environmental regulations – *Figure 1b*);
- the increase of avoiding damage cost (regarding the greater concern in the manufacturing and consuming processes or in disposing harmful substances – *Figure 1c*);
- the increase of the cost of direct damage (taking into account the unwillingness to improve the used technologies – *Figure 1d*).

The consequence of these costs increase is being reflected in higher pollution abatement costs, if keeping unmodified the pollution level. If the objective of the companies is to reduce the abatement cost, the equilibrium will be attained at a higher pollution level (PL), as shown in *Figure 1e*.



Therefore, increasing environmental taxes, under *caeteris paribus* circumstances, will lead either to the increase of the optimal abatement costs (with no equilibrium situation possible) or to the increase of the allowable pollution level (with an equilibrium situation possible), alternative which is not desirable. We should note that an increase in pollution abatement costs does not necessarily involve an increase in the pollution level.

As shown, environmental charges does not seem to be the most suitable instrument for controlling pollution, as they place a supplementary burden on all economic agents, whether their impact upon the environment has grown or not

#### b. Linking tradable permits with pollution abatement costs

*Figure 2* emphasizes a possible shift in pollution abatement costs, generated by a tradable permits scheme. Tradable permits are included in the category of market-based instruments for pollution control, which are regarded as public policies, which make use of market mechanisms with transferable property

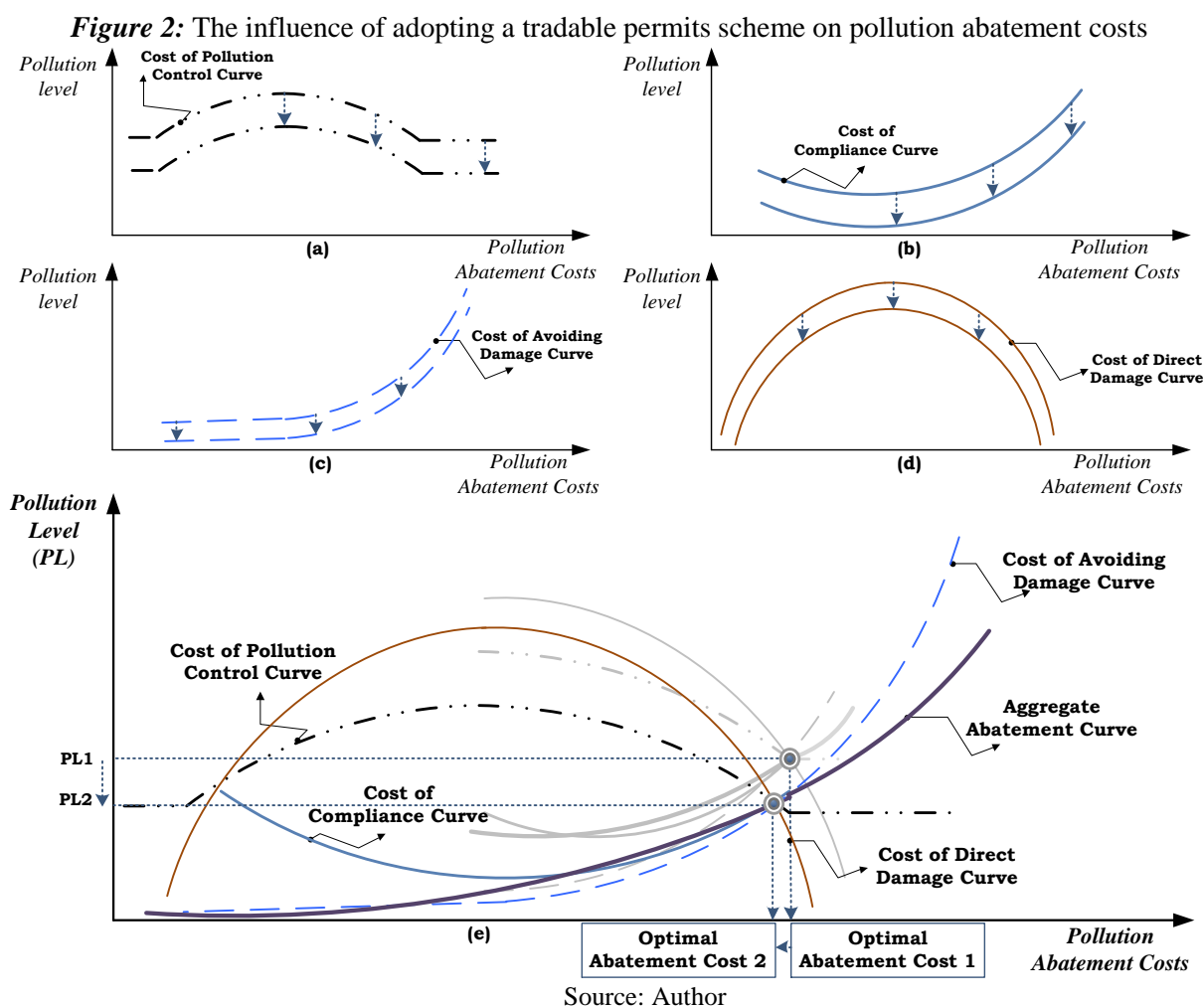
rights to distribute the policy burden (Wiebe & Dick, 1998). However, there is a thick border between economic instruments (which are regarded as environmental targets or emission quotas proving the environmental compliance) and market-based instruments (which are tradable instruments, such as green certificates, white certificates and carbon allowances). Therefore, market based instruments are a much narrower concept representing just a tradable commodity (Langniss & Praetorius, 2004) whereas policy instruments are compulsory rules which ensure environmental compliance.

Unlike the previous case, by adopting a tradable permits scheme, the decrease in the optimal abatement cost is accompanied by the lowering of the pollution level.

In this case, under *caeteris paribus* conditions, adopting a tradable green certificates scheme will lead to:

- the decrease of the pollution control costs (as they are strongly related with the direct damage costs – as shown in *Figure 2a*);
- the decrease of compliance costs (regarding the compliance of the technologies with the environmental regulations – *Figure 2b*);
- the decrease of avoiding damage cost (regarding the previous experience in the manufacturing and consuming processes or in disposing harmful substances – *Figure 2c*);
- the decrease of the direct damage costs (taking into account that energy companies will produce most of the energy by exploiting renewable sources – *Figure 2d*).

Apparently, adopting a tradable permit scheme is a superior alternative for controlling pollution, as it can achieve the decrease of both the pollution level and the pollution abatement costs, as shown in *Figure 2e*.



However, using a tradable permit scheme as a single instrument for pollution control is useless and inefficient, because of multiple disadvantages amongst which we could mention:

- the certain categories of economic agents to which is designed (for example, in the case on green certificates, the obliged parties are the energy producing companies);

- the involvement of massive investments (which are not affordable for small companies);
- the need of strong market-based mechanisms and regulations in order to be functional and compulsory;
- the influence of several factors, which produce changes in the trend of the pollution abatement costs, altering the *caeteris paribus* assumptions.

Integrated tradable permit schemes may prove to be an appropriate alternative for reducing the impact of these vulnerabilities, but in order to integrate two or more tradable schemes, the national authorities should provide a very complex and fully featured framework for controlling the market mechanisms.

Taking into account the research of Moors, Mulder & Vergragt (2007), which is the most recent approach concerning the main constraints in controlling pollution, we assume that a strategic option for lowering the exogenous barriers is the development of an effective system of economic instruments for pollution control (for example, in energy industry, which is one of the most suitable industry for applying pollution abatement strategies, this system could encompass either an integrated TGC<sup>1</sup> – TWC<sup>2</sup> market, or a complex TGC – TWC – TBC<sup>3</sup> market). It can be assumed that these types of integration could be achievable if certain assumptions are being respected, as follows:

- the single market based instruments should be taken off the market, in order to be completely replaced with a common market, focused on reducing the aggregate pollution abatement cost;
- the integrated market should be regulated by a central authority and the regulations should be similar in all complementary industries.

### c. Linking other economic instruments with pollution abatement costs

Other economic instruments (compliance fees, deposit-refund schemes or subsidies) have a restricted effect on the aggregate pollution abatement cost, as they only influence directly part of the environmental costs, producing contradictory shifts within the pollution abatement curves which may result in unpredictable dynamics for the aggregate pollution abatement costs.

*Compliance fees* have a similar behavior as environmental charges but they influence foremost the cost of compliance. An increased level of compliance fees will raise automatically the compliance cost and will place an undeserved burden for all the economic agents.

However, compliance fees could either raise or reduce the cost of direct damage, as the companies choose to continue their activity, just as before the compliance fee (in which case the cost of direct damage is higher) or to invest in new technologies or even to drop out the polluting activities and to perform another activities (in which case, the cost of direct damage is lower). In the second situation, on short run, economic agents will face financial problems, as a consequence of high investment costs involved by the adopting of new technologies.

The cost of avoiding damage will increase only if the marginal cost of compliance is higher than the present cost of avoiding damage (in which case the companies will choose to pay more for avoiding damage, but for paying a compliance fee). Otherwise, the cost of avoiding damage decreases (or remains constant), as the economic agents will rather pay the cost of compliance, which is lower.

Similarly, the cost of pollution control depends on the strategic decisions made regarding the payment of the compliance fees. If the company chooses to pay the compliance fees, they will be less interested in controlling pollution and the pollution control cost will decrease. Otherwise, the company would be more concerned about avoiding damage and controlling pollution and these two categories of cost will increase accordingly.

By combining these different evolution scenarios, will result an aggregate pollution abatement curve which is neither monotone nor predictable, so that decision makers will find it difficult to anticipate the further dynamics of pollution abatement costs, especially in the context of a more and more dynamic business environment.

*Deposit-refund schemes* minimize the cost of avoiding damage, but have no effect on the cost of direct damage. Deposit-refund schemes are applicable only after the final products are being used by the final consumers and are being returned to the producer.

In this case, it cannot be noticed any influence of this economic instrument, neither on the cost of

<sup>1</sup> TGC - Tradable Green Certificates, defined as a market based cost-efficient mean to stimulate electricity production from renewable energy sources.

<sup>2</sup> TWC - Tradable White Certificates Scheme, defined as a mean to encourage greater energy efficiency.

<sup>3</sup> TBC - Tradable Black Certificates, also known as Carbon Allowances, CO<sub>2</sub> Certificates or Emissions Certificates.



direct damage, nor on the cost of compliance.

Deposit-refund schemes could only decrease the cost of avoiding damage and the cost of pollution control, but they are useless as long as the biggest components of the aggregate abatement cost (cost of direct damage and cost of compliance) are not taken into account. Deposit-refund schemes could be completed with a subsidy scheme (which is complementary to deposit-refund schemes), in order to cover the entire lifecycle of a product.

Subsidies could be granted for reducing the cost of direct damage and the cost of compliance, while deposit-refund schemes help to drop-out the cost of avoiding damage and the cost of pollution control.

*Subsidies* are payments from the government to those economic agents which maintain the pollution control under a maximum allowable limit. Subsidies act partly like an environmental charge policy (as they increase both the pollution control costs as well as the cost of avoiding damage) and partly like a tradable permit scheme (as they decrease both the cost of direct damage and the cost of compliance).

Under these circumstances, it is improbable to decide whether reducing the optimal abatement cost is possible by decreasing the maximum allowable pollution level or only by increasing it. Depending on the eligible companies for receiving subsidies, as well as on the dimension of the subsidies, it can be assumed which of the alternatives is feasible.

#### **4. Conclusions**

Hereby, the paper focused on describing the relationship between the main economic instruments for pollution control and the dynamics of pollution abatement costs, in order to estimate, under *caeteris paribus* circumstances, which is the most suitable alternative for reducing pollution abatement costs, as well as the pollution level.

It has been found that apparently adopting a tradable permit scheme is more efficient than adopting an environmental charges policy, but the multiple disadvantages of trading schemes made them inappropriate for single use.

Also, when analyzing the feasibility of environmental charges and compliance fees, we should take into account that these two economic instruments, even if they are stalled, are the only ones which have an overall applicability, as they are macroeconomic tools compulsory for all economic agents within a country.

On the other side, tradable permits, deposit-refund schemes and subsidies, despite being more efficient and effective, are addressed only to a few obliged parties, which make them relevant only at industry level.

Combining two or more of these instruments may prove to be even more effective, but the occurrence of not covering all the economic agents might be very high (for example, the combination between a tradable permit scheme and a deposit-refund scheme will apply only to energy producing companies and to some manufacturing industries, where the deposit-refund scheme is possible).

Combining an overall economic instrument (environmental charge or compliance fee) with a tradable permit scheme, a deposit-refund scheme or a subsidy policy is less efficient, but covers the overall economic agents within an economy.

However, in this situation, some of the economic agents will have to endure a more awkward burden than others, as they will have to comply with both the overall economic instruments and the specific ones.

Under these circumstances, further research could analyze the alternative of using a mix of economic instruments for controlling pollution and reducing abatement costs, so that it could cover all the economic agents within a country, without creating a supplementary burden on the economic agents operating in certain industries.

#### **5. Acknowledgements**

This work was co-financed from the European Social Fund through Sectoral Operational Programme *Human Resources Development 2007-2013*; Project Number POSDRU/107/1.5/S/77213 „Ph.D. for a Career in Interdisciplinary Economic Research at the European Standards”.

## 6. References

- Austin, D. (1999) *Economic Instruments for Pollution Control and Prevention – A Brief Overview*, World Resources Institute, available at [http://pdf.wri.org/incentives\\_austin.pdf](http://pdf.wri.org/incentives_austin.pdf).
- Brechet, T., & Jouvet, P.A. (2001) Environmental Innovation and the Cost of Pollution Abatement Revisited, *Ecological Economics Journal*, 65(2), p. 262-265.
- Convery, F.J., & Redmond, L. (2007) Market Price Developments in the European Union Emissions Trading Scheme, *Review of Environmental Economics and Policy*, 1, p. 88-111.
- Gray, W.B., & Shadbegian, R.J. (2004) Optimal Pollution Abatement - Whose Benefits Matter and How Much?, *Journal of Environmental Economics and Management*, 47(4), p. 510-534.
- Kelly, D.L. (2003) On Environmental Kuznets Curves Arising from Stock Externalities, *Journal of Economic Dynamics and Control*, 27 (8), p. 1367-1390.
- Langniss, O., & Praetorius, B. (2004) How Much Market do Market-Based Instruments Create? An analysis for the Case of White Certificates, *Energy Policy Journal*, 34(2), p. 200-211.
- Montero, J.P. (2005) Pollution Markets with Imperfectly Observed Emissions, *The Rand Journal of Economics*, 36(4), p. 645-659.
- Moors, E.H.M., Mulder, K.F. & Vergragt, P.J. (2007) Towards Cleaner Production: Barriers and Strategies in the Base Metals Producing Industry, *Jorurnal of Cleaner Production*, 13(7), p. 657-668.
- OECD. (1997) *Evaluating Economic Instruments for Environmental Policy*, OECD, Paris, France.
- Oikonomou, V., Jepma, C., Becchis, F., & Russolillo, D. (2008) White Certificates for Energy Efficiency Improvement with Energy Taxes: A Theoretical Economic Model, *Energy Economics Journal*, 30(6), p. 3044-3062.
- Staudte, M., & Karcher, M. (2001) *Economic Instruments for Air Pollution Management*, APM – INFO 12 – Air Pollution Management Info, available at [http://www2.diw.go.th/PIC/download/Guidelines/APM12\\_Economic\\_Instruments-FI.pdf](http://www2.diw.go.th/PIC/download/Guidelines/APM12_Economic_Instruments-FI.pdf).
- Swensson, D.L. (2001) Tax Reforms and Evidence of Transfer Pricing, *National Tax Journal*, 54(1), p. 7-26.
- Wiebe, K.D., & Dick, R.M. (1998) Property Rights as Policy Tools for Sustainable Development, *Land Use Policy Journal*, 15(3), p. 203-215.

# CHANGES AND CHALLENGES OF THE CONTEMPORARY KNOWLEDGE BASED ECONOMY

**TODERICIU Ramona**

*Ph.D. Associate professor*

*The Faculty of Economic Science, „Lucian Blaga” University of Sibiu, Romania,*

[ramona.todericiu@ulbsibiu.ro](mailto:ramona.todericiu@ulbsibiu.ro)

**FRATICIU Lucia**

*Ph.D. The Faculty of Economic Science, „Lucian Blaga” University of Sibiu, Romania,*

[lucylucyda2005@yahoo.com](mailto:lucylucyda2005@yahoo.com)

**Abstract:** *This paper aims to present the knowledge based economy as a pillar of the knowledge society, due to the fact that in the past decades there has been a series of transitions of the global economy from the development based on traditional factors to a knowledge based economy, in which intangible goods are of vital importance.*

**Key words:** tangible assets, intangible assets, knowledge based economy, innovation, knowledge revolution

**JEL classification:**M21

From the oldest times, wealth and power have been associated to owning physical resources. The traditional production factors were predominantly physical. This is why the necessity to have knowledge was limited. However, in the future we witness a slightly different situation. In the society of knowledge, the world of ideas becomes a priority in connection to the world of tangible objects, and the intellectual capital becomes prominent in the context of all other physical forms of capital.

As a confirmation to the famous saying “knowledge means power”, the knowledge society represents the high point of the development of human society, in which knowledge is the central resource of the economy – through its capacity to substitute through some kind of specific “alchemy” the materials, transports, energy, time or space, the final and the highest fundamental source of power – succeeding to the other two sources that have marked the development of human society: violence (force) – converted progressively in law, and wealth (money) – transposed, in its turn, into knowledge. (Ogrean, 2007)

Ever since the year 1969, Peter Drucker, the brightest mind in economics, according to specialists, has warned about the emergence of a new economy. In his paper entitled “The Age of Discontinuity” (Drucker 1969), he predicted the coming of the “knowledge worker”. And, while the Industrial Revolution meant a huge increase of productivity by the replacement of the people in the process of goods manufacturing with automated machines, which led to the increase of the quality of life, nowadays, in the 21<sup>st</sup> century, we are in a full period of knowledge revolution, the result of which is the efficient “knowledge based economy”, where wealth and power come mainly from intangible intellectual resources.

The revolution of knowledge is one of the tendencies of the past decades, revolution which is now only at the beginning. The undisputed existence of a knowledge economy is reflected in the practical approach, but also scientific approach of organizations.

The debates that took place in the World SME Convention WASME which was organized in Bucharest between 15 – 18 May 2005, and had as a central theme the “Internationalization and evolution to the knowledge based economy” have reconfirmed the fact that currently, at a global level, and especially in the developed countries, takes place a knowledge revolution.

In essence, the knowledge revolution refers to the fundamental transition from the economy based mainly on physical resources to the economy based mainly on knowledge. (Bogdan, 2009)

According to the opinion of specialists (Nicolescu, 2003), knowledge revolution leads to essential changes in all fields of economic life. The impact of the knowledge revolution becomes visible in the

volatility of the market, the uncertainty regarding the direction of economic activity, the instability of work places etc. The result of the knowledge revolution is the knowledge based economy. It is believed that in the first part of the 21<sup>st</sup> century, the knowledge revolution will be more intense and, as a result, the knowledge economy will spread fast into the developed area of mankind.

The main causes of this process are considered to be the following:

- the complexity of change;
- the multitude and heterogeneity of economies (e.g.: the digital and electronic economy);
- the diversification of economic branches, regions and companies;
- the different degree and nature of the education, information, objectives, resources etc.

At a worldwide level, the stock of knowledge is growing faster than in the past. At the same time, there takes place a reduction of dependence on classical resources, with an increase in importance of knowledge as main capital of the organization. For example, in the USA there has been a decrease by 20% of tangible assets in order to produce sales of one USD, as compared to a quarter of a century ago.

OCDE (OCDE 1996) has formulated, through its specialists, the following definition of the knowledge based economy: the economy based directly on the production, distribution and usage of knowledge and information.

The new economy is an economy which creates, distributes and makes use of knowledge, all these in order to increase its quantity and complexity.

Therefore, in the new context, knowledge has the following economic roles or functions (Nicolescu, 2005): raw material, production factor, finite product, capital, without which the new economy could not work.

- As raw material, knowledge takes part to a large extent to obtaining modern products. It is obvious, for instance, that building a computer does not require only metal, plastic, or other materials, but also much knowledge. Furthermore, in the value of the products, knowledge has the largest share.
- The function of production factor refers to the participation of knowledge together with the other classical production factors to all the stages of production, starting with obtaining raw material, their processing and ending with selling the resulting product.
- However, to the same extent, knowledge represents also a finite, self existing product. The best known forms of knowledge are software, technical projects, patents, quality standards, analyses and studies of management and marketing etc.
- The function of capital resides in the fact that, in modern organizations, knowledge tends to have an increasingly larger share and present value which is expressed financially.

It is well-known the fact that, within the Lisbon Council from March 2000, the EU (CE2005) launched a set of objectives for the following 10 years, which can be reached through implementing the support of structural reforms, involved in accomplishing the general strategic aims: transforming the EU in the most competitive and dynamic economy in the world, based on knowledge, capable of constant economic growth, with better and more numerous work places and a higher social cohesion.

One of the specialists in the field (Ulseem, 2001) has formulated a set of principles referring to the new knowledge based economy, principles that bring extra knowledge and systemisation and which we hereby present:

- The value of the organization is determined mainly by the value of the intangible assets

In other words, value is represented mainly by its knowledge workers, the ideas and information they have, which become the main assets of the company.

- The importance and importance of geographical distance on the localisation and organization of businesses has decreased largely in the past periods.

Currently, the communication of the organization with its clients and suppliers, regardless of their position on the globe, can be done instantaneously. Therefore, the strategic implication of geography in the economic activities has lost its relevance.

- The time periods necessary to innovating and penetrating innovations have contracted considerably

The knowledge based economy places on higher grounds innovation and its process. Innovation represents the process of creating new products, services, technologies and management and marketing processes. As Peter F. Drucker showed: "The strategies of capitalizing on the entrepreneurial spirit are as important as innovation oriented towards a purpose and management based on the entrepreneurial spirit. Together, the three constitute innovation and entrepreneurship"(Drucker, 2000).

Renowned specialists (Kotler, 1997) believe more and more that within the new type of economy, markets are more competitive. The third millennium, from this point of view, faces organization with numerous problems, but very few solutions, which is why the great contemporary scholars draw attention to the fact that the transition through these evolutions can be done only through innovation – through transforming inventions from a mere idea, to a continuous production of new performances. In the specialized literature (Dinu, 2006) it is considered that a sustained process of economic growth exists only if the number of new and applied ideas is increasing over several periods.

The speed of renewing knowledge, products, technologies etc. has increased considerably. Consequently, innovations take place more rapidly, spread with a higher speed, and the importance of time decreases. For instance, the access to the world wide web of more than half of the global population has required only 5 years.

- Knowledge owners represent the most valuable asset of a country or organization;

In the context of the knowledge based economy, human resources become more and more important and complex than in previous economic systems. The new competitive advantage and the new hurdle for the organizations of the 21<sup>st</sup> century is represented by the knowledge of the human resources (Chan, 2002). Undoubtedly, as business evolve from the industrial to the informational age, the knowledge and experience of the employees become the most valued advantages of a company. The foundation of success in competitions is not represented by proprieties or products, but mainly of valuable people.

The continuous education and training of the human capital as carrier of knowledge represents a great necessity for the progress of the organization. The manners to do this are varied, adaptable to the benefit and orientation in the HR policy of each organization and materializes in the following: training/education at the work place, resorting to education institutions or specialized training organizations, programs of continuous learning, used for creating specialists or temporary ones, involving clear periods of preparation and the more and more present programs used in the company, which are “on the spot” with a determining role in remodelling the culture of the organization.

- The acceleration of the economic development and increase through using computer networks

Creating networks within the company, which integrate economic agents of various sizes, oriented towards value, generates a fast economic growth. Through these networks, the speed of the technical, human and economic flows, grows immensely, often generating explosive economic effects.

- The value of products increases exponentially with the value of the market segment where the company is active

If recently, the more rare a product was, the higher value it had, nowadays the situation is different, meaning that the volume of certain products is amplified differently: the more they have a larger market share, the higher their value. An example would be in the case of cell phones, the more numerous they are, the higher their value and utility, due to the network effect.

- The importance of the intermediate levels in the economy is greatly amplified

The occurrence of a category of intermediaries is corresponding to the current transition towards the knowledge based economy. They are cold info-intermediaries and they contribute to the transformation of data in useful information and even knowledge. It is obvious that the amplification of the volume and complexity of information and knowledge determines a fast growth of the number of info-intermediaries and their impact on the functionality and performance of the economy.

- Buyers have a greater power, and sellers have new opportunities

With an intelligent software and a simple click, buyers have the possibility to obtain quickly the information regarding the best products, at the most convenient prices. Therefore, they have the possibility to opt for the desired product or service and to obtain it quickly. At the same time, new opportunities are created for the sellers, as they acquire detailed information on the market and know very well at which prices they have to sell.

- The transaction of businesses and services becomes more and more individualized

The fast and cheap access to information regarding the specific requirements of clients is reflected in the fabrication and selling of products according to the express requirements of the clients. This ensures an increased personalization of the offer of products, which leads to a substantial decrease of stocks and stalling times in the economic processes.

- The increase of availability of all products

In the context of the new economy, which requires the operation with new concepts and theories, the development of economic commerce is a reality of the past.

The development of electronic commerce was possible due to a very important aspect in the separation of the traditional commerce from the electronic one, which is the time needed for the commercial transaction. Electronic commerce reduces the importance of time by shortening the production/selling cycles, allowing companies to have a more efficient operation and consumers to take part in transactions at all times.

Although the benefits of the knowledge based economy are huge, and can lead to the increase of the quality of life, of the living standards, eliminating poverty, reducing the pollution of the environment, and many other, the transition to the knowledge based economy can generate also threats for organisations, as follows (Titu, 2009):

- a decrease in the demand for many traditional products and services;
- creating new, very expensive and advanced equipment and technologies, which condition the survival of the companies;
- the acceleration of the rhythm of moral degradation of the equipment used by companies, which makes it necessary to change them after 2-3 years;
- the increase of the necessary financial resources to create and/or modernize companies, especially in the industry, agriculture, construction, transport or services;
- the great competition among transnational companies for most of the products, and of large companies on local and traditional markets;
- the migration of very good specialists from the small companies to the large and transnational ones, which offer them better working conditions and salaries. The capitalization upon the opportunities, and elimination of threats by organizations requires major actions on multiple levels, which require reunited efforts of entrepreneurs and the other organizations of the business persons and national governments, organizations and international authorities.

The state has a major role in the knowledge based economy, which refers to promoting public policies which stimulate investments in the sector of R&D&I, considered the engine of the development of this type of economy.

In the opinion of specialists (Bogdan, 2007), the research activity, in the context of the knowledge based economy, organization and management, becomes decisive, for organizations and for people and individuals alike. It also employs more and greater resources, and especially time. Scientific research must produce effects that compensate these efforts and lead to an increase in value for the organization and for its participants, therefore being stimulatory for all those involved.

Furthermore, on an economic level, productivity and competitiveness will increase based on the level of knowledge. The general reconsideration of the economic system, through an immense innovative effort leading to the knowledge based economy, is therefore a characteristic of the 21<sup>st</sup> century.

By launching the National Strategy in the field of Research-Development and Innovation, Romanian presents its political decision to create a knowledge based economy, open to value and international competition, which would ensure a harmonious economic and social development. The strategy has as objective the overcoming of the existing gaps with the other European countries, and prepare the RDI system in Romania to identify and consolidate, through international connections, partnership and competition, those areas in which Romania can excel.

The strategy comprises a list of 25 priorities grouped according to 8 domains, described in this document as priorities of the public investment in research (Brătianu ; Curaj, 2007). The basic principles in the field of RDI are:

- evaluation of policies, programs, projects;
- international evaluation of public institutions (universities and research centers);
- the coordination between institutional financing and performance;
- the advancement in the career based on internationally recognized performances;
- supporting the mobility of researchers; attracting young PhD students, post-doctoral students, as well as experienced, valuable researchers, regardless of nationality;
- the intensification of scientific and collaboration links with the Romanian scientific Diaspora;
- the development of international collaboration and supporting the participation in programs and projects;
- supporting innovation, also through the increase of the public demand for innovation;
- the increase of the state aids for supporting innovation;
- permanent dialogue with society.

We believe that, although the main resource of the new economy is knowledge – intangible resources, the tangible resources, which are limited, should not be overlooked, but, on the contrary, used to identify new manners of protection and conservation of the environmental resources. The new economy, the environmental economy, promotes economic increase in the context of increased protection of the environment, accelerating the reduction of physical consumption and favouring the usage of information and knowledge, shifting the importance from investment into fixed assets to investment in human capital.

## Conclusions

The obvious reality of our days is the coming of a new type of economy, an economy very different from the industrial one or from the post-industrial one, one that already is functioning in the more developed areas of the world economy in the past decades. The world we live in is marked by the fast evolutions of technology and efficiency, is the world in which information means power. Market globalisation, technical and technological revolutions are transforming the contemporary economy into what specialists call knowledge based economy, in which the business world is characterized by new types of organisation, which requires developing competences and generalizing the advanced technologies, thorough knowledge and a higher responsibility. Nowadays, in the context of the knowledge based economy, the competitive edge is obtained through science, through the widespread use of knowledge, through innovation and qualified workforce.

In the future, the differences between rich and less rich countries will not reflect in the owning and using the classical production factors, but will be represented by the production, access to and usage of knowledge. The great scholar, Peter Drucker (1993), claimed that “What we now mean by knowledge is information effective in action, information focused on results. These results are seen outside the person - in society and economy, or in the advancement of knowledge itself.”

In the new knowledge economy, the role of the state becomes crucial due to the fact that economic competitiveness cannot be stimulated without investments in research – development – innovation.

## References

- Bogdan, I. (2007) *Elemente de metodică a cunoașterii, cercetării științifice și valorificării cunoștințelor*, Editura Alma Mater, Sibiu
- Bogdan, I. (2009) *Managementul riscului în afaceri între realitățile și cerințele lumii contemporane*, Editura Universitară, București.
- Brătianu, C.; Curaj, A.(2007) *Managementul cercetării științifice universitare*, Editura Economică, București.
- CE (2005) *Mobilizing the brain power of Europe: enabling universities to make their full contribution to the Lisbon Strategy*, COM 152, Brussels.
- Chan T.(2002) *Knowledge Management in Document Company, Capitalizing on Knowledge Workers*, APO, Tokio.
- Dinu,M.(2006) *Societatea cunoașterii. O perspectivă postreferențială asupra resurselor*, Editura Economică, București.
- Drucker, P.F.(1969) *The Age of Discontinuity*, Harper and Row, New York.
- Drucker, P. (1993) *Post-capitalist Society*, Harper Collins, New York
- Drucker, P.F. (2000) *Inovare și spirit întreprinzător*, Teora, București.
- Kotler, Ph. (1997) *Managementul marketingului*, Editura TEORA, București.
- Nicolescu, O.(2003) *Managementul general al organizației*, volumul I, Editura Economică, București, 2003.
- Nicolescu O. ; Nicolescu L.(2005) *Economia, firma și managementul bazate pe cunoștințe*, Editura Economică, București
- Ogorean, C.; Herciu, M.(2007) *Relația investiția în cercetare-dezvoltare și competitivitate, în economia bazată pe cunoaștere(I)*, *Euroeconomia XXI*, nr.116.
- Popescu, D; Popescu M. *Comerțul electronic versus comerțul tradițional* Available at [http://www.amfiteatrueconomic.ase.ro/arhiva/pdf/no21/articol\\_fulltext\\_pag127.pdf](http://www.amfiteatrueconomic.ase.ro/arhiva/pdf/no21/articol_fulltext_pag127.pdf).

- Ulseem, J.(2001) Our 10 principles of the New Economy, *Business*, nr.5
- Țîțu, M.(2009) *Managementul inovării*, suport de curs
- x x x(1996) *The Knowledge-Based Economy*, OCDE, Paris, 1996.



# RELATION BETWEEN SUSTAINABILITY AND LEAN MANAGEMENT

**TODORUȚ Amalia Venera**

*associate professor Ph.D. Faculty of Public Administration and Comparative Political Studies, Political and Administrative Studies Department, "Constantin Brâncuși" University, Târgu-Jiu, Romania, amalia\_venera@yahoo.com*

**Abstract:** *In this paper, we have approached aspects related to sustainability and the relation between sustainability and new methods of modern organisation like Lean Management.*

*he objectives of the paper have been materialized in: explaining and interpreting the concept of sustainable enterprise, the exemplification of Lean management method and Lean production, which favour the sustainable development. This paper presents a case study, too, that expresses the transcendence of Lean production in a sustainable production, arguing that the application of some modern management methods promote the sustainable development of organizations in the current and future economic environment*

**Key words:** sustainability, Lean Management, sustainable enterprise, sustainable development,

**JEL classification:** M11, Q01, Q56

## 1. Introduction

We are living in a period which is under the sign of change, of profound and radical transformations in all fields. Now, when time is not patient anymore, when resources are more and more limited, the environment is more hostile, more dynamic and complex, the requirements of society and people have become more demanding, imposing a rethinking of all the activities, of all processes, of systems in the community, economy and society.

Social transformations are fast, intense and have a lasting effect, even permanently, being also associated to “moving ocean currents in deep, well below the water surface which is already agitated by hurricanes. They have radically changed the society and economy, the community and the state in which we live.” (Drucker, 2010)

Therefore, the management of organizations is no exception and, it is among the areas that have strongly centred the concepts and actions around the concept of change. Major changes which are in progress or anticipated for the future and that cause the change within organizations, due to the development of knowledge, technical and economic progress, the emergence of new values, the globalization of economies and capital flows require the management to exercise flexibility by adapting and changing the constructive and functional parameters of the organization management, giving dynamism to its activities and results.

All the changes, both at the macroeconomic level and in each and every organization, should be based on the principles of a sustainable development, promoting that kind of development capable of satisfying the needs of the present generation, without compromising the ability to meet the needs of future generations and highlight the requirement to simultaneously approach the imperatives of economic development and environmental protection.

## 2. Concern for sustainability

It is a long time since sustainable development is not a new and unknown topic in the business world anymore, now being a tendency to reorient and implement its organization-wide requirements in many areas. However, there are still doubts and uncertainties about the way of approaching and the transposition into practice of the principles included in the concept and, as well as, of quantification efforts, not only financial, submitted by the organizations in order to add on the list of features the attribute of “sustainable”.

Sustainable development, in its already classic sense, defined in Brundtland report as “development that meets the needs of present without compromising the ability of future generations to meet their own needs” (SDG. 2008) refers to a macroeconomic concept that can be applied at the society level or more limited, at human communities.

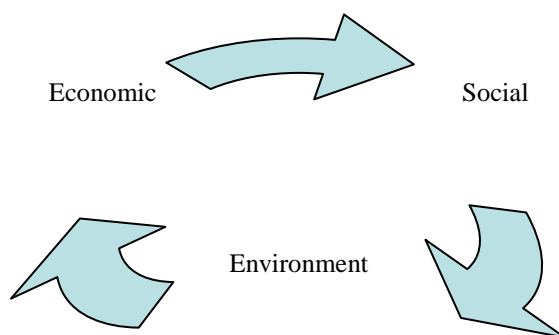
If we analyse this concept from the perspective of an organization, the definition provides no clue about what is needed to be done or in what it has to turn in order to transpose a sustainable development into reality. The concept of sustainability, on the other hand, covers exactly this lack from the perspective of the organizations. Thus, the transformation of today's organizations in sustainable organizations is, in fact, part of the solution to the problem of the sustainable development of human society (Vaida, Căndea, 2010).

In practice, when a firm disappears from the market or encounters serious problems to maintain profitability, it can easily be said that firm is not sustainable. When, however, the firm has a good market position, it generates profit and can not be characterized as having high pollution generating processes or great consumers of resources, though, it remains to be demonstrated what it makes for sustainability (Vaida, Căndea, 2008).

The way the world develops its economic activities and promotes an economic development which is directly linked to people's wellbeing it is likely to ensure the sustainable development of the human society, being assessed as unsustainable. We can say that sustainability comes off the concept of sustainable development by the fact that there, where sustainable development refers to the entire planet and its evolution over time, sustainability is addressed to some of its components related to population and its activities, such as for example organizations in their various forms and manifestations. Thus, by adding a number of activities in an unsustainable way, the sustainable development of the whole is jeopardized.

Sustainability, viewed from the perspective of an organization can be described as the development of all the activities within it in a way that would ensure continuity in time, indefinitely. Just like the sustainable development, sustainability is based on three pillars, according to the following figure:

**Figure nr.1: The pillars of the sustainable development**



Source: (Vaida,A., Căndea,D., 2010)

In terms of human society and environment, any activity of the organization which has a negative effect on them, may be considered unsustainable by that it lowers the potential for a sustainable development of the whole. Environmental damage may result, extremely, in the loss of society and therefore the disappearance of organizations as entities. The negative effects on human society contradict the idea of meeting the needs in that the negative effect is most often translated in jeopardizing the ability to meet the needs of individuals and, by the extreme to threaten their health and even lives.

If the objectives of growth and development inherent in the vast majority of the human organizations and economic organizations in private overlap over this image, two major aspects contrary to the idea of sustainable development result. The first is that the development and growth of an organization that has a negative impact on the environment and society is likely to amplify the negative effects that it has and thus, reduces the potential for the sustainable development of the system environment – society – organization. The second is that the society by the governing bodies, competition, stakeholders, etc., will put pressure on the organization using various forms of legal regulations and penalties for it to eliminate or minimize the negative effects it has on society and the environment, affecting the very existence of the organization.

An approach of the organization sustainable, simply assumes that the organization grows and grows without negative impact on the environment while having a positive impact on society. This description is idealized (Vaida, Căndea, 2010). If growth and development are translated into economic terms by profit and increasing workload, the positive impact on society is partly generated by the very existence of the organization. Porter and Kramer (Porter, Kramer, 2006) highlight this by saying that the

greatest service that a firm can make to society is to provide jobs, products and services and contribute to the generation of social welfare.

Professor Serge Latouche has a different interpretation which is in favour for a model of the dynamics of modern economies, both at the level of each country and also globally. “In a world with limited resources, the dominant paradigm up to now has been that of the infinite growth. It is necessary to change this paradigm before being crushed by the limits that nature has“(Latouche, 2006). The author launches the idea of economic decline which is a challenge, a challenge addressed to all social – economic and political actors in the world. In other words, the economic decline, proposed to general attention by him, is not a fundamental concept of a new economic theory regarding the current and future economic dynamic, but a slogan.

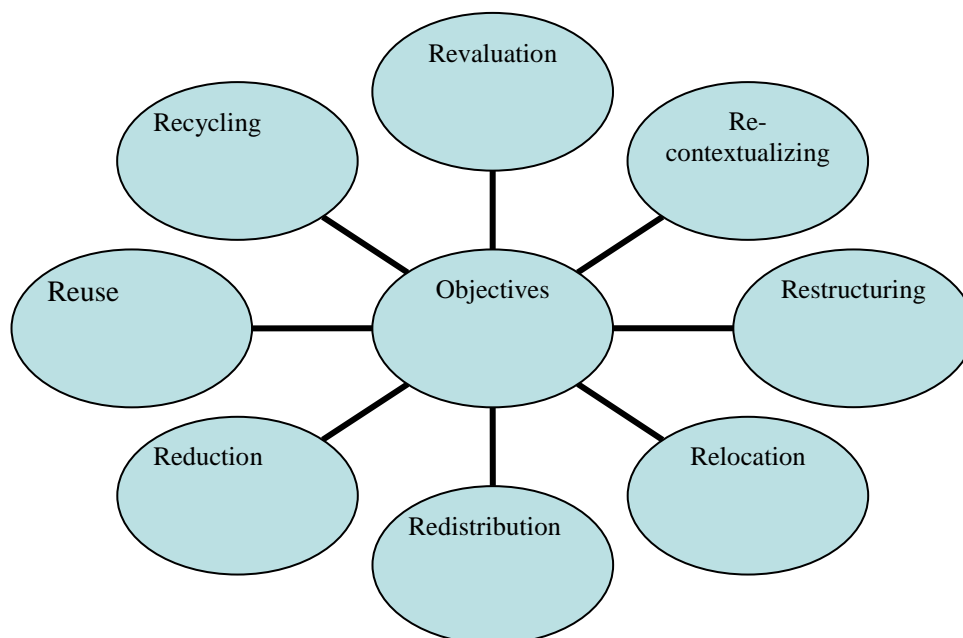
Synthesizing the concept of Professor Latouche regarding the decrease, it results that he suggests a rethinking of the current state of things in society, by adopting a different social logic, which can try to build a sustainable society by:

- The change of current concepts and values;
- The change of structures;
- The relocation of economy and life;
- The profound change of the current way of consuming products.

Thus, Professor Latouche launches a challenge by his vision on the decline, but he does not omit in his reasoning the idea of welfare. Still, he claims that it is necessary to reach a new paradigm of welfare, more intelligent and more rational from the social point of view, as well as in what concerns the environment. The productive apparatus would be restructured for other forms of production that would not affect the survival of the planet. Production should result from the implementation of ecological footprint, given the bio space, meaning that one that allows us to live with what we produce and which is limited.

The implementation process of the society decrease entails eight interdependent objectives, which were named the eight R's as it can be seen in the following figure:

**Figure nr.2: The eight interdependent objectives**



Source:(Latouche, 2006)

The eight objectives can be synthesized thus:

1. The author proposes, by reassessment, the reviewing of the values in which the current society believes and which are bases for the current organization of people's life. Cooperation will have to rely on competition, altruism over selfishness, local interest on the global one and the social life problems unlimited consumption.
2. Re-contextualizing - To shape the context again supposes the change of the conceptual and emotional context of a situation, which is lived thus so that the meaning is completely changed.

Such a change is required, for instance, on the concept of richness and poverty or on the concept of lack and abundance. Moreover, the current economy transforms the natural abundance in crisis, creating artificially, the deficiencies and needs through the acquisition of nature and its commercialization.

3. Restructuring is adapting, depending on the change of values, of the economic – productive structures, of the consumption patterns, of social relationships, of lifestyles, to redirect them towards the society of continuous decline. The more radical this restructuring will be the faster the systematic character of the current dominant values will be uprooted.
4. Relocation requires, in the author's view, the satisfaction of consumption from the local products made in enterprises which are sustained by the local economy. As a consequence of this situation, it is expected that any economic decision to be taken locally. Goods and capitals movements should be reduced to minimum, to avoid the transport costs, and also pollution, the greenhouse effect and climate changes.
5. Redistribution aims to guarantee for all the citizens the access to the natural resources and an equitable distribution of wealth, ensuring the satisfactory employment of labour and respectable conditions of life for all.
6. Reducing the impact on the biosphere by resizing production and consumption, as well as the hours of work, the resources consumption should be reduced and correlated with the limited resources of the globe.
7. Reusing involves overcoming the obsession of consumption on the goods obsolescence and the continuous tendency to endow with new products and adopt the custom to repair the appliances and other goods instead of throwing them away in working order.
8. Recycling intends that any product from the category of waste and scrap, which is derived from human activities and cannot be decomposed, to be recovered and reintroduced in the economic circuit.

After going through these eight objectives that, in the opinion of their author, should provide an economic decline without disturbances, the question arises to what extent they are feasible. Even if Professor Latouche recognizes that the economic decline is not an economic concept, as the economic growth is with theories and models suitable for it, but a slogan, this is still a challenge in the best sense of the word.

If this slogan would be implemented, a human society upheaval and a restructuring of the existing ordinances, installed progressively in history, would take place. Reducing the physical quantities that are produced and the resources used, concerns obviously the industrial developed countries over time, which helped, in large measure, to meet the standards reached by the current civilization.

According to the opinion of some specialists (Dobrotă, Vierită, 2010), from the analysis of changes that would take place in the evolution of human society, it results that is not only about the quantitative aspects of the process of decline, but also about the transformation of complex socio – economic and political structures, but especially about the individual and collective mind. There is not a one-way action against the idea of economic growth, but a change of paradigm.

### **3. Sustainability and Lean management**

To shape the perspectives of organizational sustainability a proactive management is necessary (Oncic-Sanislav, Căndea 2009) – by anticipating the changes that will arise in stakeholders needs, finding resources and action towards the established targets achievement.

Organizational changes determine a new type of management that promotes the use of those methods and management techniques that lead to the development of the organizations with respect for the environment.

Lean Management is one of the methods of management, which, as stated by Dickmann enables the sustainable economic development and prevents the staff turnover, citing the “management contracts that propels the sustainable development throughout the organization” is one of the “purposes after which the management must necessarily be oriented” (Dickmann, 2007).

Being a sum of principles and methods derived from Toyota production system, Lean Management requires employees to participate in improving the system for the reduction of seven types of waste, in all the company activities: human relationships, relationships with suppliers, technology, materials management and stocks. Lean management is based on the principle of flexibility and the speed of response to the demand for products or services, aiming at increasing the efficiency of the process chain that creates added value to products and services.

The fundamental principle that Lean Management method is based on, is that of an efficient and effective configuration of the process chain, value creation and it is divided into a number of procedural and background principles (Pfeiffer, Weiss 1994).

Procedural principles relate to:

- Complete approach (systematization, integration, interdisciplinary);
- Orientation towards process;
- Continuity and perseverance in thought and action;
- Orientation towards application;
- Perfection even in details;
- Avoid loss;
- Orientation towards client;

Background principles de fond are reflected in the following:

- The change of perspective – from the accumulation of goods towards human capital;
- Designing the whole value chain as a super-integrated network;
- Designing the super-network provider - manufacturer - beneficiary as a self-taught system;
- The integration of the analysis on the product and the production process.

The Lean model focuses on the evolution process of changes and adaptation to these changes and it is not just a technology idealized level. A central organizational concept is the sustainable enterprise, in which the corporation is building processes and mutual relations in partnership with stakeholders.

Centred on the principles of Just-in-time method (JIT) at the end of last century, the concept of fluent production mainly concerns the production relations of an enterprise.

If the JIT method aimed as objective only the production of those products that will be sold, that of fluent production wants the company to be able to adapt to the rapid market fluctuations.

A Lean Management system will be a slender and agile management system, able to adapt quickly to any changes in the environment. Lean management concept can be considered as an evolution of some concepts of production, perfectly correlated with the conditions in which the enterprises of the twenty-first century are developing. (Badea, 2009)

The greatest benefits from Lean model include the use of resources, a rapid development cycle of products, a better quality at a lower cost, a more flexibility and an organic system of production.

A particular interpretation of the concept of Lean in the view of some specialists is that it is a production phenomenon that seeks to maximize the labour results of resources number one of the company: people. That is why Lean is a way of thinking, of adapting to changes, of eliminating losses and of continuous improvement. There are many tools and techniques that used together, maximize the efficiency of human resources and with which a company may appear as “Lean” (Năftănăilă, 2010).

Lean Management method integrates a number of other techniques and methods for involving the management and employees in eliminating the loss and creates the prerequisites of a sustainable development. Particularly suggestive is the integration of Lean Management method with Six Sigma, which is a synergistic approach which consists in integrating the best practices for improving progress and increase customer satisfaction, followed by corroborating in seven steps the concepts of performance of Six Sigma in five phases DMAIC with the reduced cost concepts of Lean Management. This is compounded by other methods such as:

- Kaizen (improvement of standardized activities and processes to eliminate loss);
- Poka Yoke (elimination of product flaws by preventing, correcting or drawing attention to human errors when they occur);
- Kanban (production control on the flow through cards or signals);
- 5S (the organization of jobs by improving security and delegating responsibility to improve the work place);
- Visual Management (understanding the state of production in five minutes by simply observing it through panels and visual signals);
- The Map of the value flow (taking into consideration the activities necessary for designing, producing and supplying the product and service, to identify loss in flows of materials and, information and value and to find solutions to reduce or eliminate them);
- Hoshin Kanri (using PDCA – plan-do-check-act, to establish objectives, choosing how to check fulfilment and establish a connection between daily activities and the organization strategy).

An important aspect of the sustainable organizations that promote a Lean production is to create a system of environmental management, which, as some experts say (Bergmiller, Mark Wright, 2009) “is a

process by which the management of an organization identifies the environmental aspects regulated and unregulated, the impact of operations and develops objectives and plans to make significant improvements on the environmental protection”.

In the environmental management system is ISO 14001 that can be implemented in any organization and business, regardless of size, location or income. The objective of the standard is to reduce the environmental footprint of a business and to reduce pollution and loss of ongoing business processes. The standard ISO 14001 refers to five key steps for implementing an environmental management system, namely:

- ✓ Establishing an environmental politics;
- ✓ Planning the environment activities;
- ✓ Implementing the planned actions;
- ✓ Verifying the system and correcting irregularities;
- ✓ Validating the operation of the system;

As seen from the analysis of the three stages it can be find the application of the PDCA cycle, which represents a fundamental principle on which all the requirements of the standards ISO 14000 are based.

#### **4. Case study on the relation between Lean production and sustainable production**

Any organization can integrate Lean tools and concepts with the concepts of sustainability to have a positive impact on the environment, society and its economic performances. Lean principles help the organization to eliminate waste and at the same time help companies to meet the ever-increasing requirements of customers, while preserving valuable resources for the future generations.

The link between Lean production and the sustainable production has been documented recently in the literature (Angel Klassen, 2009, Sawhney et al., 2007). Sustainable production is defined by Allwood (2009) as “a method of developing technologies which transform materials without gases emission of greenhouse and without generating losses”. Lean Production seems to transcend into the sustainable production.

It is also highlighted the close link between Lean production and the sustainable production, adding that “it is natural that the concept of Lean, the continuous flow of value and focus on eliminating losses is in full resonance with the global environmental strategy, called the Lean Environment” (Sawhney et al., 2007).

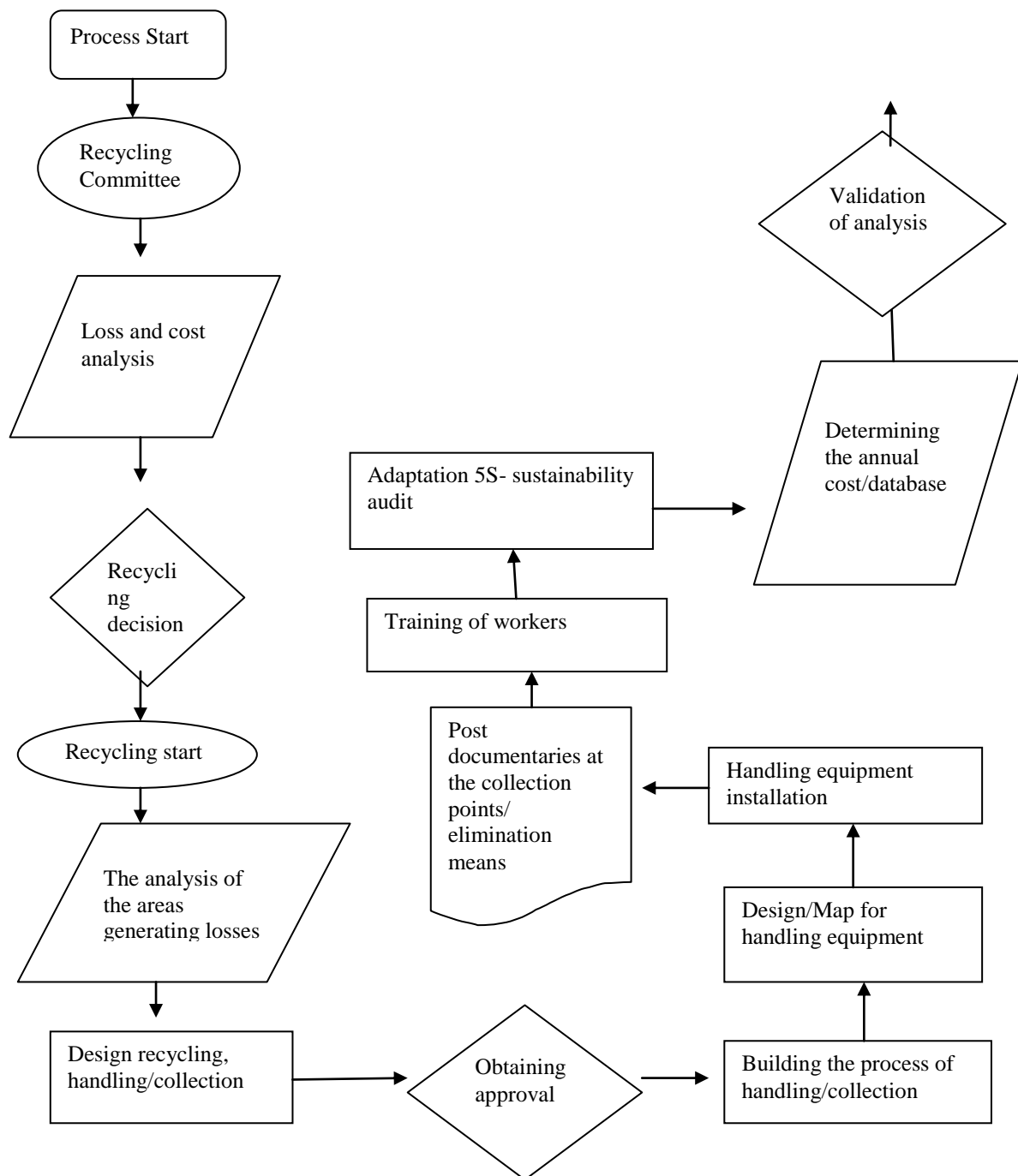
Particularly relevant is the conclusion of a group of professionals in the field of environment and Lean (Miller et al., 2010) that compared the environmental impact in case of a manufacturing cell where the principles of Lean production are applied with the production organized on manufacturing lots. Experts have shown that there are more positive matrix of a sustainable development for Lean production unless the production on manufacturing lots:

- ✓ Air pollution was reduced because the power consumption was less;
- ✓ Safety and health of employees was higher due to optimizing the equipment location;
- ✓ The exposure to hazardous materials was reduced by eliminating the unnecessary transfers;

Teresko (2004) also showed the link between lean production and the sustainable production in his research into the Bill McDonough’s book entitled “Cradle to Cradle”. Teresko states that the Lean objective is to create “a strong structure around value and optimized processes, including the entire external commercial environment in the optimized process, integrating all the production flows from global to national levels and even sub-microscopic” (Teresko, 2004).

An example which shows that the results of Lean projects are inherently sustainable, creating a future support for multiple comparisons between Lean production and the sustainable production is the recycling program within a company that can be made based on the principles of Lean by the map drawing of the process for the development of recycling program according to the following figure:

Figure nr.4: Map of the process for developing a recycling program



Source: (Miller, 2010)

Lean focuses on stable and standardized processes and facilitates the development of a formalized documentation not only for value added, but also to eliminate non-value-added.

Applying Lean principles and making an evaluation and a continuous improvement of processes, companies can achieve a high level of eliminating waste.

## 5. Conclusions

In the last decade, the concept of sustainability has grown to become a significant element in the strategy of many organizations around the world. Sustainability as a mega trend is an evidence and responsibility of current and future period.

The sustainable development at the level of society, and sustainability in business are targets located somewhere in time, to which it should be continuously marched, without being able to achieve

them as achieving the objectives of a plan. The sustainable development is a journey, a way of life and, similarly, the sustainability of an enterprise is an emerging.

Based on the three pillars of sustainable development: economic development, social development and environmental protection, by analogy, it came to believe that enterprises should ensure a balance between their performances in relation to the economic, social and environmental protection objectives to be sustainable. Based on this cause-effect relationship, sustainability assessment, both in dynamic and compared between firms, is made currently taking into consolidation the actions that the firm enhances in social and environmental area, overlapped with its usual activities – which aims at success on the market. The more the firm has greatest achievements towards environmental and social objectives, the more it is considered that it is more sustainable.

The management of sustainable organizations is a proactive, dynamic, open one, based on new, integrated methods and techniques, which facilitate the achievement of social, economic and environmental protection objectives.

We have exemplified, throughout the paper, the importance of Lean Management method, as method, which by analyzing the value stream and eliminating waste creates the prerequisites for a sustainable development of the company. Applying Lean Management method and creating a Lean enterprise closely linked to the sustainable enterprise is only one facet of the organizational change.

Within the knowledge-based society, the sustainable enterprise is an enterprise that always learns, that always adapts to environmental changes, which adopts a modern leadership and that is becoming a priority for present and future.

## 6. References

- Angel, L și RobertK.,(1999) Integrating Environmental Issues into Mainstream: An Agenda for Research in Operation Management, *Journal of Operation Management*, nr.17, pp 9-15
- Allwood,J.,(2005) Sustainable Manufacturing , Seminar Series:available <http://www.ifm.eng.cam.ac.uk/seminar> accesat 10.01.2012
- Badea,F.(2009) Contributions on the Lean Management in the current evolution of company, revista *Economie, seria Management*, Vol.12, Nr. 1/2009, pp 168- 179
- Bergmiller,G., și McWright,P.(2009) Lean Manufacturer's transcendence to Green Manufacturing, *Proceedings of the Industrial Engineering Research Conference*, May 30-June,3, Miami,Fl, pp.35-41
- Dickmann ,P.(2007) *Schlanker Materialfluss mit Lean Production, Kanban und innovationen*, Springer Berlin Heidelberg, pp100
- Dobrotă,N. și Vieriță,A.(2010) Legea entropiei –cea mai economică lege dinte toate legile naturale; manifestări monoeconomice actuale, revista *Economie teoretică și aplicată*, Vol.XVII, No.5, pp.55-72
- Drucker,P.(2010) *The Essential Drucker-* selecție din lucrările de management ale lui Peter Drucker, Editura METEOR PRESS,pp255
- Global Reporting Initiative, (2010) GRI Reports List,available <http://www.globalreporting.org/reportservices/>, accesat 20.01.2012
- Latouche, S. (2006) *Le pari de la décroissance*, Paris. pp145-149
- Miller,G.,Pawloski,J.,Standridge,C.( 2010) A case study of lean, sustainable manufacturing, in *Journal of Industrial Engineering and Management*, JIEM 3(1), pp.11-32
- Năftănăilă, I.(2010), *Lean și Meșterul Manole – evoluția producției Lean, 1. De la mit la realitate și de la realitate la posibilitate*, Revista Calitatea Acces la succes, anul 11, nr.3 , pag.23-30
- Oncic,S.,D.,Câdea,D.(2009) Organizația care învață, caracteristică strategică a întreprinderii sustenabile: coordonate teoretice, în *Întreprinderea sustenabilă*, cartea a 4-a, Editura UTPRESS, Cluj-Napoca,pp9
- Porter, M.,și Kramer,M.,R.(2006) Strategy and Society:The Link Between Competitive Advantage and Corporate Social Responsibility, *Harvard Business Review*,30, pp26-27
- Pfeiffer, W.,și WeissE.(1994) *Lean management :Grundlagen der Führung und Organisation lernender Unternehmen*, Berlin, pp.57



- Sawhney,R., Teparakul,P.,Aruna,B.,și Li,X.(2007) EN-Lean: a framework to align lean and green manufacturing in the metal cutting supply chain, *Society for modeling and Simulation International*, 21(2),pp21-23
- SD Gateway(2008) Introduction to Sustainable Development , <http://sdgateway.net/introsd/definition/> , accesat 15.12.2011
- Vaida,A.; Căndea,D. (2010) A model for internalizing sustainability in organizations, în *Întreprinderea Sustenabilă,2010*,Centrul de ECO-Management, vol.2, Cluj-Napoca, pp.1-61
- Vaida,A.; Căndea,D.(2008) Sustenabilitatea din Perspectiva Industriei Cimentului, în *Întreprinderea sustenabilă*, vol.3, Edtura UT Press Cluj-Napoca, pp.23-29
- World Business Council for Sustainable Development, (2010)avaible <http://wbcsd.org/>, accesat 15.01.2012

# THE ROLE OF EDUCATION IN DEVELOPING A CULTURE OF SUSTAINABILITY

**TODORUȚ Amalia Venera**

*Associate professor Ph.D. Faculty of Pubic Administration and Comparative Political Studies, Political and Administrative Studies Department, "Constantin Brâncuși" University, Târgu-Jiu, Romania, amalia\_venera@yahoo.com*

**CÎRNU Doru**

*Professor Ph.D. Faculty Economic Science and Business Administration , Management, Marketing and affairs Administration Department, "Constantin Brâncuși" University, Târgu-Jiu, Romania , Romania, doru.cirnu@yahoo.com*

**Abstract:** *This paper takes an institutional approach to analyzing the role of education in adopting sustainable development practices. It assesses the influence of the existing individual values on the capacity of countries to follow sustainable paths and suggests possible ways to make education a pillar for building a culture of sustainability.*

*Study objectives relate primarily to establish the role of universities to become a potential agent of change towards sustainability. Thus universities can develop sustainable practices, can form skills to integrate, synthesize and analyze systems, can do research based on real world problems and promote and strengthen the interactions between individuals and institutions.*

*The developed study is materialized in a model regarding the formation and development of a sustainability culture being based on six successful key domains : environment, local impact, curriculum, standards for sustainability, skills and scientific research.*

**Key words:** sustainability, change, education, sustainable university, culture.

**JEL classification:** M11, Q01, Q56

## 1. Introduction

In the last half century, humanity became aware of the need to stop economic development made at the expense of the environment and, ultimately, to the existing mechanisms to support life on our planet.

It's also recognized the need not to restrict the possibility of meeting the human needs of every kind, both present and future. Since most of these needs are met through economic activities as a whole, the imperative to maintain and perpetuate the economic development of human society was recognized. More obviously, economic development is directly linked to the wellbeing of individuals in a particular location in the world and is seen as the very engine of development of society in general.

Without ignoring the truth contained in these statements, we can say that now, the way the world develops their economic activity is unlikely to ensure sustainable development of human society, can be assessed as unsustainable. We can say that sustainability comes off the concept of sustainable development in that, where sustainable development refers to the entire planet and its evolution over time, sustainability is addressed to some parts of it related to population and its activities, such as for example organizations in their various forms and manifestations. Thus by adding a number of activities in an unsustainable manner, jeopardizing the sustainability of the whole.

Efforts to sustainability can be seen from this angle as a road map for achieving the sustainable development. Take into account the kinds of such economic and social development that protects or promotes the natural environment, social equity and welfare of the individual.

Sustainable development, in its already classic acceptance, defined in the Brundtland report as "development that meets present needs without compromising the ability of future generations to meet their own needs" ( Vaida,A.; Cîndea,D. 2010) refers to a macroeconomic concept that can be applied at society level, or limited to the human community

If we look at this concept from the perspective of an organization, the definition does not give any indication of what to do or what to turn to translate sustainable development into reality. The concept of sustainability, on the other hand covers exactly this lack of perspective in organizations. Thus,

transforming today's organizations in sustainable organizations is in fact part of the solution to the problem of sustainable development of human society. ( Vaida,A.; Căndea,D. 2010)

## 2. Universities in the transition to sustainable development

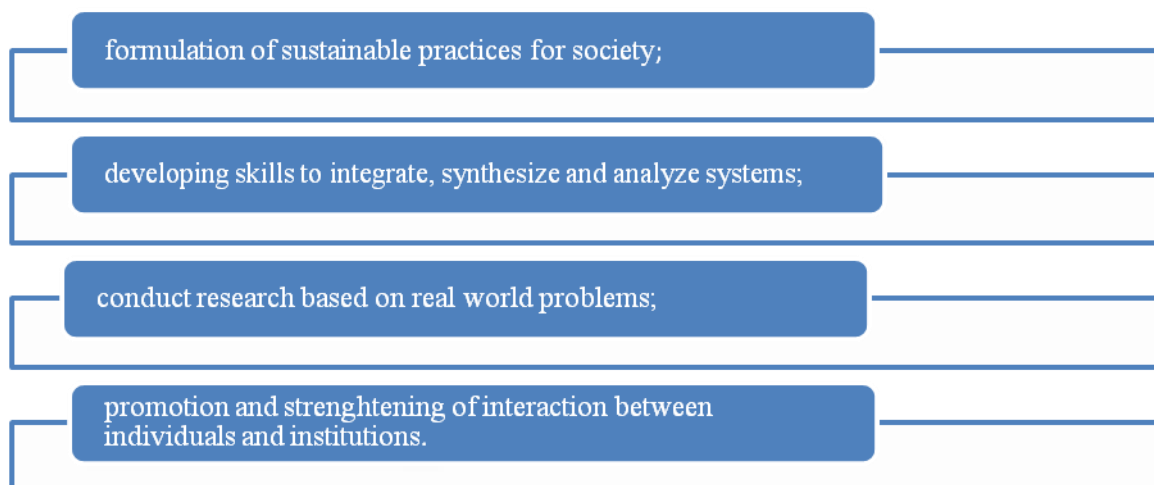
Higher education institutions have a unique position in society. Universities are places of special importance due to production, dissemination and spread of knowledge. Among the conventional association of universities and knowledge, higher education institutions have the unique potential to promote synthesis and integration of different types of knowledge and its application to enhance social change.

In terms of social transition towards sustainability, the main role of higher education institutions may be considered in two ways: universities can be seen institutions that need to be changed or may be seen as a potential agent of change.

There are specialists like Ferrer-Balas (Ferrer Balas,D.; Adachi,J., Baras,S., 2008) who emphasize the first of the two perspectives, showing how higher education can change from within, or specialists such as Stefans, Jennie ( Stephens, C.;HernandezE.; Scholz,R.,W., 2008), which explore the potential of higher education institutions as an agent of change in society, highlighting how universities can facilitate change from within.

Different perspectives and expectations on the role, value and potential of the university in society have given rise to numerous university perceptions about opportunities to become agents of change in the transition to sustainability. Although these perceptions vary from culture to culture, there are four general categories of perception of how higher education could help society's transition to sustainability(Radu,S.; Deneş, C., 2011), as shown next:

**Figure 1- Perceptions of how universities can contribute to the society's transition to sustainability**



Source(Radu,S.; Deneş, C., 2011)

Thus higher education could lead to sustainable practices for society, and this opinion is based on the idea that sustainable practices in the campus, the teaching methods that the company can maximize sustainable behavior.

Second, higher education teaches students skills to integrate, synthesize and analyze systems and skills to deal with complex issues necessary to address issues of sustainability.

Third, higher education can make a useful research based on real world problems, which aims to address the urgent sustainability issues facing society.

Finally, higher education can promote and strengthen interaction between individuals and institutions, both within and outside higher education, to reaffirm the position of universities as transdisciplinary agents, with close links with other institutions of society.

The first of these categories incorporates the view that the university is a microcosm of society that can try innovative approaches to environmental management even of campus operations(Ferrer Balas,D.; Adachi,J.; Baras,S., 2008).

In this respect, higher education institutions have the potential to influence by modeling sustainable practices inside, so that everyone who interacts with universities to recognize, appreciate and learn from them and even try to emulate.

Thus, sustainability practices and principles behind these practices are transferred to partners through the institution itself and its behavior (Colucci-Gray, L.; Camino, E.; Barbiero, G., Gay, D., 2006).

The second category is based on the idea that higher education is primarily a space focused on learning, and that in this context, university through curriculum could popularize and promote sustainability (Colucci-Gray, L.; Camino, E., Barbiero, G., Gay, D., 2006).

A curriculum designed to promote sustainability requires not only traditional knowledge base, but for a change requires a new set of skills, mainly relating to synthesis, integration and assessment of complex systems. Higher education therefore has the potential to facilitate social transition by adjusting the curriculum to incorporate, reward and support the skills of synthesis, integration and analysis of complex systems.

Strategic planning and understanding of social infrastructure behind technological development in this new era is an essential part of education. A broader social context for understanding and interpreting social impact or significance of technology, inventions or curriculum is now essential. The need for contextualization incorporates a new need, analysis and management of complex systems and interconnections, and changes need to focus on technological perfection or disciplinary limitations.

The third category is based on the belief that higher education plays a unique role in society, meaning that universities are places where research based on free and independent thinking and the exchange of ideas is promoted and supported.

Universities are generally considered spaces where they create, store and transmit knowledge.

But given the urgent need of society for a transition to sustainability requires a new concept, both creation and knowledge sharing. In terms of knowledge creation, or research, new research is needed, motivated by the desire to make social change to develop a more sustainable direction and not motivated to go beyond conventional knowledge and understanding as a creative and sometimes self-centered activity.

In terms of knowledge sharing in this new era of sustainability challenges, there is a new requirement for students to teach themselves, combining theory with practice.

Interconnectivity and complexity of the biggest challenges facing society requires individuals to work together to understand systems, thus the simple notion of „teacher” or expert professor that gives knowledge to his students is no more nowadays.

In this context, interdisciplinarity, activities include a fusion of concepts and methods from different disciplines, play an increasingly important role.

Finally, the fourth category refers to the potential of higher education institutions to integrate and influence society by enhancing openness, involvement and interaction between faculty staff and students who are formally affiliated to the institution.

In this context, possible mechanisms for closer ties are varied but include, for example, involvement in policy making, non-formal education, community planning and development and technological support.

This foreign involvement is key to the concept of transdisciplinarity, a concept that goes beyond traditional disciplines and interdisciplinary activities.

b. Transdisciplinarity explicitly incorporates processes, knowledge and goals of those involved and organizes processes of mutual learning between science and society ( Scholz, R., W.; Lang, D., Y.; Wierk, A.; Stauffacher, M., 2006).

c. As a result, the interdisciplinary higher education has the potential to promote transdisciplinarity by increasing linkages with other actors, beside students, faculty or staff.

### **3. Culture for sustainability in higher education space**

Higher education institutions have the unique freedom to develop new ideas, to analyze the company and involve in daring experiments, and to help create new knowledge. (Cotesse, A., 2003)

Universities in particular are designed to develop their students' so-called dynamic qualities (Posch, A.; Scholz, R., W., 2006) that allows them to analyze, build and operate with a high degree of autonomy and self-determination, if not in their personal lives, at least in their professional life.

At the same time universities should help students develop skills which will allow them to cope with uncertain situations, and vaguely defined norms, values, interests and conflicting constructions of reality that are in conflict, or at least divergent.

An instrumental interpretation of education and culture for sustainability becomes problematic. In such an interpretation, education must contribute to creating a culture for a sustainable world - either way this world looks.

Education, including higher education, is a means or a tool that governments can use to create a more sustainable world, as it appears in their and the stakeholders vision.

The problem is that we don't know for sure which is the correct sustainable lifestyle. Even if we knew it would vary profoundly from one situation to another and would probably be subject to shifts over time since the circumstances are changing constantly.

We can analyze a more emancipation of the relationship between education and sustainability. Such a theory argues that education should help create a fairer world in terms of democratic and ecological terms - either way it would look.

Education is seen as a way to fulfill membership of society, seeking meanings, develop their potential and find solutions together.

According to this view, a sustainable world can not be established without the full involvement of all members and democratic society, a sustainable world without participation and democracy is unthinkable.

If you join more instrumental theories of education for sustainability we can imagine, on the one hand, rules of "eco-totalitarian" who by law and order, reward and punishment, and behavioral conditioning can create enough sustainable society in terms of environmentally friendly criteria. (Radu, S; Deneş, C., 2011)

As a creation of emancipation theory, we can imagine a very transparent society with active citizens who participate directly and analytically to the processes of problem solving and decision making, and appreciate and respect the ways of thinking, of assessing and alternative action.

Perhaps this company is not as sustainable as an eco-totalitarian society, from a strictly environmental perspective, but its members may be happy, finally, able to better respond to ecological problems that arise.

These notions about democracy and participation can also be applied to decision-making processes in terms of content and the learning that takes place in colleges and universities. We should answer the following questions (Barlett, P., F., Chase, G., H., 2004):

- To what extent are learners and those who assist the learning process involved in such decisions?
- To what extent higher education meets the challenges identified by the community?
- To what extent is the educational process and content of education sensitive to ideas, values, interests and conceptions that students themselves stand for?

These are questions to be answered when trying to find connecting environmental concerns with concern for democracy in a learning environment.

If integration of sustainability in higher education is closely linked to development of emancipation qualities it will need to give students a way to understand and transform the complex world they live in.

This era has not questioned the productive processes in terms of social and economic practices of production, making them stronger.

Development of standards and positivist and deterministic results for education, environmental education and education for sustainability fits into this tradition.

Despite the questions we have on the sustainability of higher education organizational structure is, however, great educational potential can and should be valued higher education institutions.

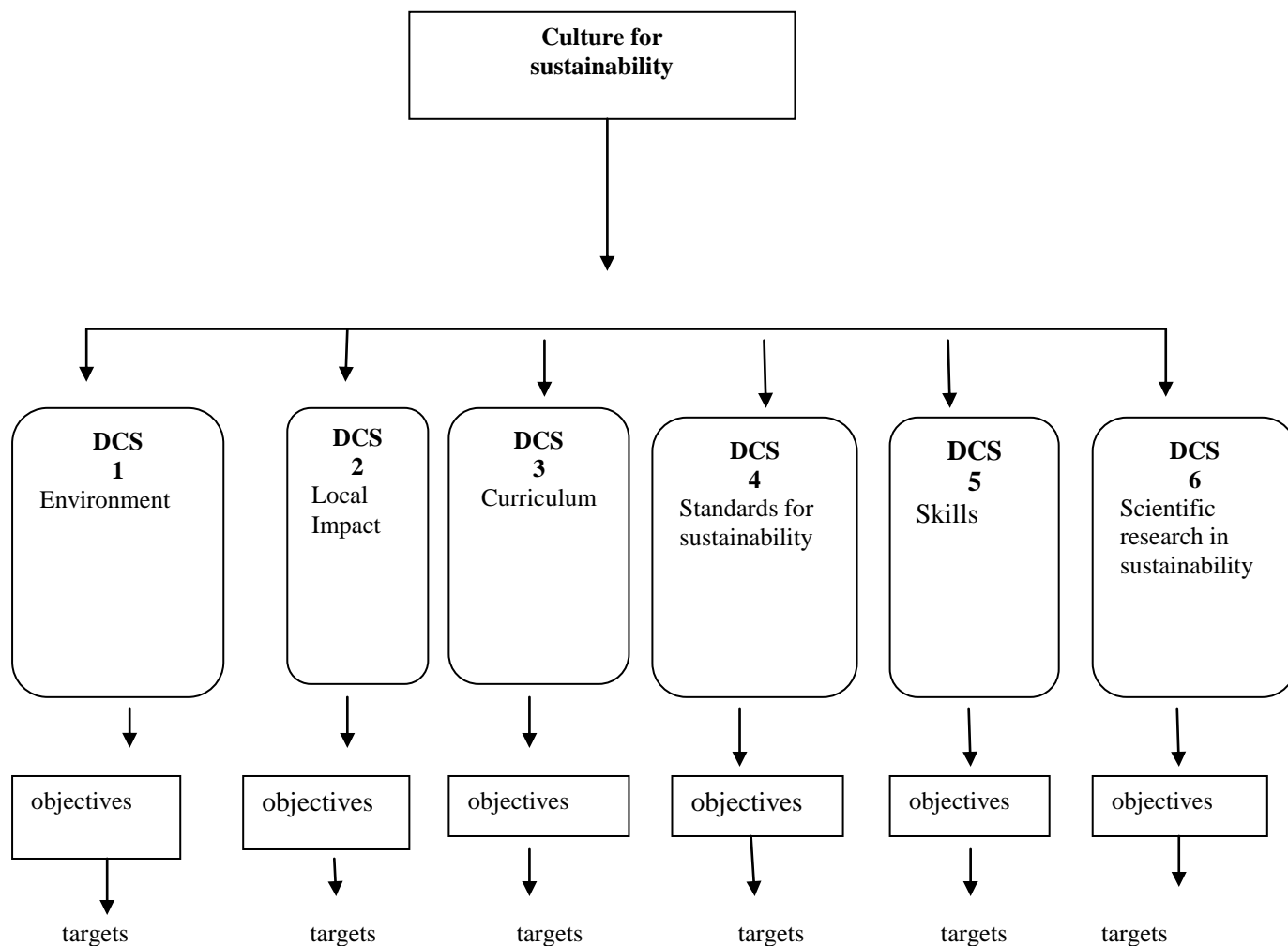
Sustainability has many aspects and features that greatly enhance its educational potential of a more emancipated perspective. These issues include:

- Sustainability as reality (socially constructed);
- Aim to achieve sustainability;
- Sustainability as a concept and dynamic / evolving;
- Sustainability as normative ethics and moral;

- Sustainability as innovation and catalyst for change,
- Sustainability as a heuristic tool that helps thinking;
- Sustainability as a corner stone in the evolution of environmental education and environmental thinking:

Developing a model for training and developing a culture of sustainability in higher education, focused on six successful key areas(DCS), may be presented as follows:

**fig.2- Culture for sustainability**



Source: (Paraschivescu,A.,O.;2009)

Impregnation of sustainability in the functions of a university offers the potential for the institution to contribute substantially to improving the environment.

#### 4. Conclusions

The fact that sustainability is a poorly defined term offers universities the opportunity to shape and develop new ways of thinking about this notion. Sustainability provides colleges and universities the opportunity to balance their essential values, practices, their traditional pedagogies, the way they program the learning process for the student, the way it determines the resources and relationships with the entire community.

Higher education is above all a mission to create opportunities and not to define or prescribe the future of our students.

These opportunities arise when universities promote observation, evaluation and creative new ideas and contribute to their development. Addressed as such, sustainability should be considered only one of many milestones. So universities have huge responsibility to raise awareness, knowledge, develop technologies and tools necessary for a sustainable environmental future

## 5. References

- Barlett, P.F. Chase, G.H. (2004) *Sustainability on Campus Stories, and Strategies for Change*, MIT Press, Cambridge, pp.157-185
- Colucci-Gray, L. Camino, E. Barbiero, G. Gay, D. (2006) From a scientific literacy; an ecological framework of education, in *Science Education*, vol.90, no.2, pp.227-252;
- Cotesse, A. (2003) The critical role of higher education in creating a sustainable future, *Planning in Higher Education*, vol.31, no.3, pp.15-22
- Ferrer Balas, D. Adachi, J. Baras, S. (2008) An international comparative analysis of sustainable transformation across seven universities, in *International Journal of Sustainability in Higher Education*, Vol.9, No.3, pp.295-316
- Radu, S. Deneş, C. (2011) *Managementul resurselor și Sustenabilitatea*, Centrul de Competențe "Lucian Blaga", Sibiu, pp.16-34
- Paraschivescu, A.O. (2009), *Managementul excelenței*, Editura TehnoPress Iași, pp.89
- Posch, A. Scholz, R.W. (2006) Integrating research and teaching on innovation for sustainable development, in *International Journal of Sustainability in Higher Education*, Vol.7, No.3, pp.254-267
- Scholz, R. W., Lang, D.Y. Wierk, A. Stauffacher, M. (2006) Transdisciplinary case studies as a means of sustainability learning historical framework and theory, in *International Journal of Sustainability in Higher Education*, Vol.7, no.3, pp.226-251
- Stephens, C. Hernandez, E. Scholz, R.W. (2008) Higher education as a change agent for sustainability in different cultures and contexts, in *International Journal of Sustainability in Higher Education*, Vol.9, No.3, pp.317-338
- Vaida, A. Căndea, D. (2010) A model for internalizing sustainability in organizations, in *Întreprinderea Sustenabilă, 2010*, Centrul de ECO-Management, vol.2, Cluj-Napoca, pp.1-61

# THE SOCIAL RESPONSIBILITY OF BUSINESS ORGANIZATIONS: THE CASE OF PFIZER

**TOMA Sorin-George**

*Professor, Faculty of Administration and Business, University of Bucharest, Romania,  
[tomagsorin62@yahoo.com](mailto:tomagsorin62@yahoo.com)*

**MARINESCU Paul**

*Professor, Faculty of Administration and Business, University of Bucharest, Romania,  
[paulmarinescu1@gmail.com](mailto:paulmarinescu1@gmail.com)*

**Abstract:** *The complex relationships between business and society have constituted the subject of many researchers from different disciplines in the last century. The aims of our paper are to render in brief the theoretical framework related to the concept of social responsibility of business organizations, and to highlight the implementation of the concept in the case of the largest biopharmaceutical corporation in the world. The methodological approach was based on the literature review. Our paper contributes to a better understanding of the social responsibility of business organizations and provides a platform on which to build further studies on the same subject.*

**Key words:** social responsibility, corporate social responsibility, business organizations, society, Pfizer

**JEL classification:** M14

## 1. Introduction

The roots of social responsibility appeared earlier in the history of humanity. During the time, the complex relationships between business and society have constituted the subject of many researchers from different disciplines such as economics, law, journalism, management, sociology, political science, philosophy, and business policy. The First Industrial Revolution brought many changes and opened “new perspectives on the relationship between economic growth and social welfare” (Heald, 2005, p. 1). However, significant concerns about the role of businesses in society, especially big businesses, first arose in the United States of America (USA) at the end of the 19<sup>th</sup> century. The emergence of large business organizations in society led most American people to blame them as being too powerful economic and financial entities.

The corporations continued to expand their power in the 20<sup>th</sup> century. In the 1930s, some researchers warned about the fact that huge American business organizations had come to dominate major industries in the country: “The economic power in the hands of the few persons who control a giant corporation is a tremendous force which can harm or benefit a multitude of individuals, affect whole districts, shift the currents of trade, bring ruin to one community and prosperity to another. The organizations which they control have passed far beyond the realm of private enterprise- they have become more nearly social institutions.” (Berle and Means, 1932, p. 46)

The modern era of social responsibility started after the Second World War when H. R. Bowen considered corporate social responsibility (CSR) as a way of integrating the societal values beyond the interests of corporate shareholders (Toma, et al., 2011). The 1960s and the 1970s brought an effervescence of ideas related to the field of social responsibility expressed by the works of several prolific authors such as K. Davis, W. C. Frederick and G. Goyder.

In the beginning of the 21<sup>st</sup> century several corporate scandals both in the USA and Europe (e.g., Enron, Tyco, Parmalat, Ahold) were associated with a culture of executive greed and poor management oversight. Those scandals have shaken public confidence in businesses, have caused a growing deficit of trust and have spurred “a general climate of increased scrutiny, tighter rules and legislation” (Grayson, Hodges, 2004, p. 21).

The current financial and economic crisis has eroded once again the public’s trust in big business organizations. That is why now is probably the most important moment for the business organizations to reaffirm their commitment to responsible and sustainable business practices. In this respect, the business organizations should be rethinking their responsibilities to the various publics concerned with their activities (Snider, et. al., 2003).

The aims of our paper are to render in brief the theoretical framework related to the concept of social responsibility of business organizations, and to highlight the implementation of the concept in the



case of the largest biopharmaceutical corporation in the world. The methodological approach was based on the literature review.

The paper is organized as follows. The second chapter of the paper deals with the conceptual framework of the social responsibility of business organizations notion, emphasizing some of the main contributions derived from the literature. A short history of Pfizer is expounded in the third chapter. The fourth chapter presents in details the social responsibility at Pfizer. This is followed by conclusions.

## 2. Conceptual framework

Over the last century, a steady stream of research has developed concerning the concept of social responsibility of business organizations who has continued to grow in importance. CSR has become “somewhat of a millstone for the business community” (Hawkins, 2006, p. 1) and created new pressures in an increasingly complex environment. In other words, CSR has never been more prominent on the businesses agenda than it is in the 21<sup>st</sup> century (Craig Smith, 2003).

As CSR is rather an elusive concept, there is not a universally acceptable definition of CSR (Fifka, 2009). A review of the literature reveals various definitions and different interpretations of the CSR concept. This could be explained by its relatively long history and by its multidisciplinary approaches.

Within the complex relationships between business and society four main themes were identified as follows (Whetten, et al., 2002):

- ‘organizing principles’ (‘why’) that examines the basis for claims that corporations should act on social and ethical issues;
- ‘organizational processes’ (‘how’) that focuses on companies’ responses to claims that they ought to act in certain ways;
- ‘social issues’ (‘what’) that underlines the specific concerns expressed by various stakeholders;
- ‘business-government relations’ (‘a unique who’) that focuses on activities directed at business by government (e.g., trade policies) and on activities directed at government by business (e.g., lobbying).

Therefore, these themes led to different viewpoints about the social responsibility of business organizations. Due to the wide range of CSR definitions in existence, theoreticians have categorized them into the following two approaches (Schwartz, 2011): those who state that business has only to obtain profits within the boundaries of minimal legal and ethical compliance, and those who consider that there are broader responsibilities.

H. R. Bowen provides the first definition of the social responsibility in business as follows: “it refers to the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society” (Bowen, 1953, p. 6). On his turn, K. Davis argues that social responsibility is a nebulous idea that refers to “businessmen’s decisions and actions taken for reasons at least partially beyond the firm’s direct economic or technical interest” (Davis, 1960, p. 70). Starting from the fact that social responsibility invokes both socio-economic and socio-human values, he presents two different views on social responsibility:

- on the one hand, businessmen understand they have a broad obligation to the community within they act with regard the economic developments affecting public welfare (e.g., inflation, full employment);
- on the other hand, businessmen have the obligation to nurture and develop human values (e.g., morale, cooperation).

Later, M. Friedman states that the only social responsibility of business organizations is to increase their profits by legal means. From the opposite side, H. Mintzberg shows that “without responsible and ethical people in important places, the society we know and wish to improve will never survive” (Mintzberg, 1983, p. 14). Moreover, A. B. Carroll (1999) identifies four components of CSR: ethical, economic, legal, and discretionary (philanthropic). The social responsibility of business encompasses “the economic, legal, ethical, and discretionary (philanthropic) expectations that society has of organizations at a given point of time” (Carroll and Buchholtz, 2012, p. 34).

In essence, CSR represents a multidimensional construct that describes the complex relationships between business and society. Business exists to serve not only its shareholders, but also the larger society within it operates. In this respect, Pfizer is a valuable example.

### 3. Pfizer: a short history

Located in the USA, Pfizer is the largest research-based biopharmaceutical company in the world. In 1849, C. Pfizer and C. Erhart, two German young entrepreneurs, co-founded Charles Pfizer & Company, a fine-chemicals business, in a red brick building in Brooklyn, New York. Pfizer was a chemist and Erhart, a confectioner. Combining their skills, they succeeded in launching a palatable form of Santonin, an antiparasitic used to treat intestinal worms. The “new” Santonin proved to be an immediate success for the new company.

As the Civil War demanded large quantities of painkillers and disinfectants, Pfizer expanded its production of tartaric acid (used as a laxative and skin coolant) and cream of tartar (used as a diuretic and cleansing agent). In the 1880s, Pfizer was America’s leading producer of acid citric.

In 1899, after 50 years of existence, Pfizer became the leader in the American chemical business, owning in its portfolio a wide array of industrial and pharmacological products (e.g., citric acid, borax, camphor). A statement made by C. Pfizer showed that the goal of the company was to provide high-quality products to the customers. Pfizer remained a privately held company until 1942 when 240,000 shares were sold to the public.

The company was successful in its efforts to mass-produced Penicillin, the first real defense against bacterial infection, and became the world’s largest producer of the so-called the “miracle drug”. By its contribution to the war effort, Pfizer earned the coveted Army-Navy “E” Award in 1943. After the end of the Second World War, Pfizer researchers started an intensive race to find new organisms to fight disease. In the 1950s, Terramycin (Oxytetracycline), a broad-spectrum antibiotic, was the result of the company’s first discovery program.

Step by step, Pfizer continued to invest in research and development and became one of the most diversified corporations in the global health care industry. Today, Pfizer has a wide range of biopharmaceutical products. Its best products in terms of revenues are Lipitor, Lyrica, Prevnar 13/Prevenar 13, Enbrel, Celebrex, Viagra, Norvasc, Zyvox, Xalatan/Xalacom, Sutent, Geodon/Zeldox and Premarin family (Table 1). In 2011, Lipitor, Lyrica, Prevnar 13/Prevenar 13, Enbrel and Celebrex each delivered at least 2 USD billion in revenues, while Viagra, Norvasc, Zyvox, Xalatan/Xalacom, Sutent, Geodon/Zeldox, and the Premarin family each surpassed 1 USD billion in revenues. In 2010, Lipitor, Enbrel, Lyrica, Prevnar 13/Prevenar 13 and Celebrex each delivered at least 2 USD billion in revenues, while Viagra, Xalatan/Xalacom, Effexor, Norvasc, Prevnar/Prevenar (7-valent), Zyvox, Sutent, the Premarin family, Geodon/Zeldox and Detrol/Detrol LA each surpassed 1 USD billion in revenues.

**Table 1: The revenues of the major biopharmaceutical products of Pfizer in the period 2009-2011 (millions USD)**

Product	Primary indications	2011	2010	2009
<b>Lipitor</b>	Reduction of LDL cholesterol	9,577	10,733	11,434
<b>Lyrica</b>	Epilepsy, post-herpetic neuralgia and diabetic peripheral neuropathy, fibromyalgia	3,693	3,063	2,840
<b>Prevnar 13/Prevenar 13</b>	Vaccine for prevention of pneumococcal disease	3,657	2,416	-
<b>Enbrel</b>	Rheumatoid, juvenile rheumatoid and psoriatic arthritis, plaque psoriasis and ankylosing spondylitis	3,666	3,274	378
<b>Celebrex</b>	Arthritis pain and inflammation, acute pain	2,523	2,374	2,383
<b>Viagra</b>	Erectile dysfunction	1,981	1,928	1,892
<b>Norvasc</b>	Hypertension	1,445	1,506	1,973
<b>Zyvox</b>	Bacterial infections	1,283	1,176	1,141
<b>Xalatan/Xalacom</b>	Glaucoma and ocular hypertension	1,250	1,749	1,737
<b>Sutent</b>	Advanced and/or metastatic renal cell carcinoma (mRCC) and refractory gastrointestinal stromal tumors (GIST) and advanced pancreatic neuroendocrine tumor	1,187	1,066	964
<b>Geodon/Zeldox</b>	Schizophrenia; acute manic or mixed episodes associated with bipolar disorder; maintenance treatment of bipolar mania	1,022	1,027	1,002
<b>Premarin family</b>	Menopause	1,013	1,040	213

Source: (Pfizer, 2011, p. 21)

These successful brands allow Pfizer to obtain superior financial performance in comparison with other pharmaceutical corporations. In this respect, the total revenues of Pfizer have significantly increased in the last years (Table 2).

**Table 2: The Financial Performance of Pfizer in the period 2008-2011 (millions USD)**

	2011	2010	2009	2008
<b>Revenues</b>	67,425	67,809	50,009	48,296
<b>Research and Development expenses</b>	9,112	9,392	7,824	7,945
<b>Net income attributable to Pfizer Inc.</b>	10,009	8,257	8,635	8,104
<b>Total assets</b>	188,002	195,014	212,949	111,148
<b>Total debt</b>	38,949	44,013	48,662	17,283

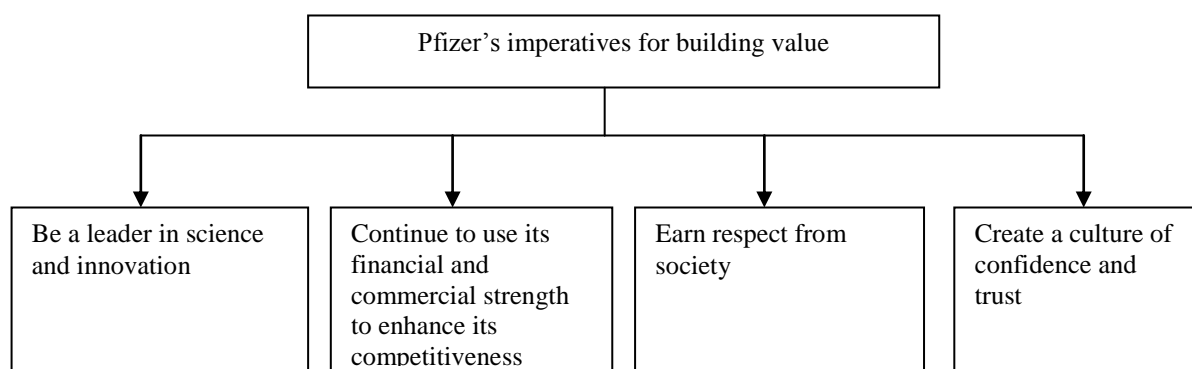
Source: (Pfizer, 2011; Pfizer, 2010a, p. 10)

According to Fortune Global 500 world's largest corporations, Pfizer was ranked no. 103 in the world in 2010. However, Pfizer is not only a very profitable corporation, but also a highly responsible one.

#### 4. Social responsibility at Pfizer

During its long corporate history, social responsibility has become a fundamental concept for Pfizer. CSR plays a key role in achieving its mission of "Working together for a healthier world". There are at least two main reasons that explain this assertion. Firstly, CSR is inextricably linked with the Pfizer's imperatives for building value such as "Earn respect from society" (Figure 1).

**Figure 1: Pfizer's imperatives for building value**



Source: (Pfizer, 2010a)

Secondly, CSR is based on the Pfizer Values such as respect for people, community and integrity. Among its values (Figure 2), integrity constitutes one of the core values of the corporation. Ian C. Read, Pfizer chairman and chief executive officer, considers that integrity means complying with the law, reflects who Pfizer is as a company and as individuals, and helps Pfizer to earn the trust and respect of the people it serves. In essence, integrity is at the core of Pfizer's identity and reputation.

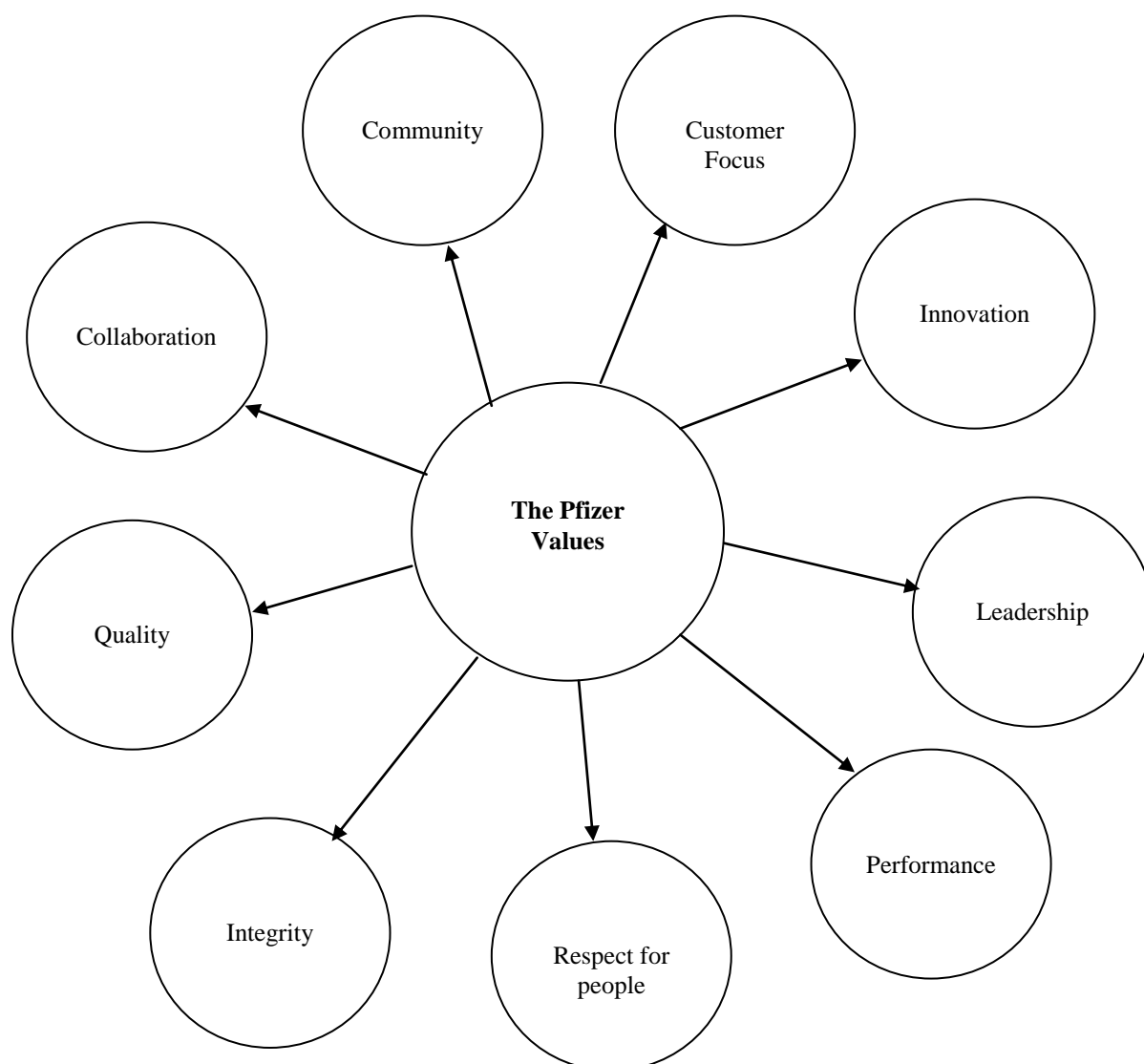
According to Pfizer Policies on Business Conduct, performance with integrity represents both what Pfizer does and who Pfizer is. In order to perform with integrity, the employees of Pfizer:

- take responsibility and hold each other accountable;
- raise concerns and ask questions;
- make the right decisions even when those are difficult;
- maintain corporate high standards in everything they do and everywhere they operate.

Performing with integrity means setting the right priorities and delivering on Pfizer's commitment while adhering to Pfizer's Values and standards. The essence of Pfizer's commitment is expressed in the so-called "The Blue Book" as follows:

- Know the standards, and live by them.
- Know the law and ask questions.
- Raise concerns.
- Always act with integrity.

**Figure 2: The Pfizer Values**



Source: (Pfizer, 2012)

By building a healthier world, Pfizer has always striven to act in a responsible manner towards the society and/or community within it functions. In 2007, Pfizer asserted in its CSR report that a responsible and accountable (socially, ethically and environmentally) company is a trusted company. Its corporate responsibility objectives were:

- To follow internationally recognized standard for corporate responsibility reporting.
- To develop corporate responsibility performance measures.

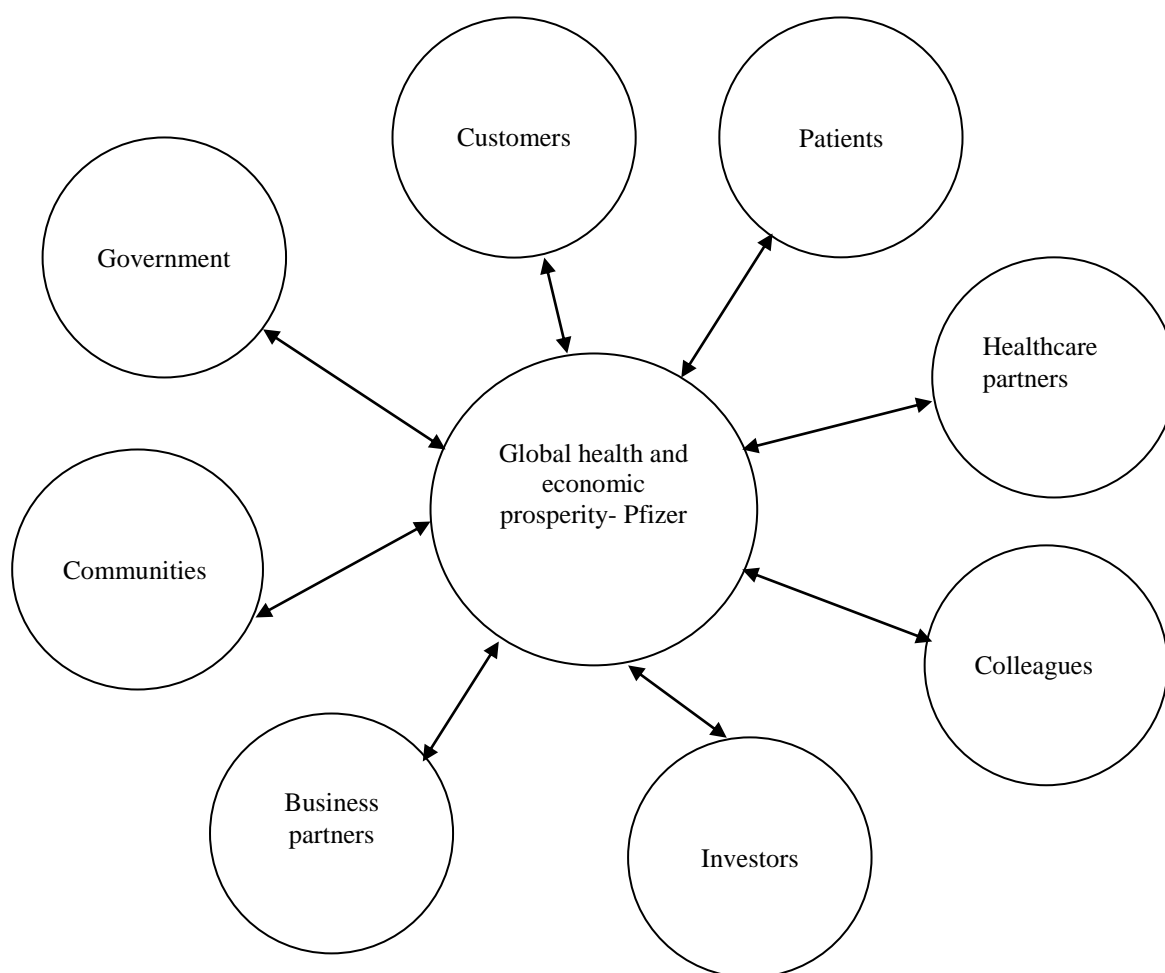
That is why the American biopharmaceutical colossus has taken a dramatic step to reshape itself into a more flexible, entrepreneurial and accountable corporation starting with 2008. On its website (<http://www.pfizer.com/responsibility/>), Pfizer declares that its responsibility in a changing world is the following: “As a member of today’s rapidly changing global community, we are striving to adapt to the evolving needs of society and contribute to the overall health and wellness of our world. We are continually reviewing and improving our efforts to lessen our impact on the environment, nurture a workplace of diversity and inclusion, conduct responsible business practices, and uphold the highest ethical standards in everything from research and development to sales and marketing. And, we are building partnerships in communities throughout the world to strengthen health systems, increase access to our medicines and find sustainable solutions to the health challenges of today, and tomorrow.”

A key element in improving Pfizer’s corporate responsibility efforts is the relationship with its stakeholders (Figure 3). In the past years Pfizer has worked with various important stakeholders such as American Cancer Society, Business for Social Responsibility, Harvard University, World Health

Organization and World Bank. Pfizer uses a stakeholder model that recognizes the inherent interconnectedness of its goals and its stakeholders. In this respect, the Pfizer's objectives related to CSR are:

- To integrate corporate responsibility into Pfizer's core business processes.
- To facilitate responsible transitions during the economic recession.
- To improve public health around the world.
- To develop and implement a program to protect the integrity of Pfizer medicines.
- To reduce its impact on the physical environment.
- To support US health care system reform.

**Figure 3: Major stakeholders of Pfizer**



Source: (Pfizer, 2009)

In order to achieve the above mentioned objectives, Pfizer has striven to develop and implement many CSR programs in the last decade (Table 3). All of them express its commitment to participating actively in and improving the societies and/or communities in which Pfizer do business.

**Table 3: Pfizer CSR programs**

Year	Program	Impact on society
2007	Mobilize Against Malaria	In Ghana, conducting training sessions for Licensed Chemical Sellers enabling more than 660 chemical sellers in 13 districts to provide better malaria education to over 20,000 people, dispense medicines according to national protocol, refer complicated malaria cases and pregnant women to nearby health centers.
2007	Global Health	The program supported 29 grantees in 46 countries across five continents

	Partnerships	addressing emerging challenges in cancer and tobacco control.
2007	Connect HIV	Over 6,000 individuals at high risk for contracting HIV/AIDS have been reached with prevention messaging and educational programs; 573 HIV-possible individuals have learned how to prevent transmission to their partners, etc.
2004	Pfizer Helpful Answers	The program has helped over 5.1 million patients receive over 51 million Pfizer prescriptions, the equivalent of USD 4.8 billion worth of free medicines and savings.
2004	Infectious Diseases Institute	Nearly 4,000 health care workers from 27 countries have received training in various aspects of the prevention and care of HIV/AIDS and related infectious disease, etc.
2003	Global Health Fellows	Over 200 Fellows have been selected to serve as physicians, epidemiologists, nurse educators, supply chain experts, IT specialists and business consultants in 39 countries.
2000	Diffucan Partnership Program	The program has provided over USD 840 million in medicine to more than 2,000 sites in 63 countries, with training and education of 20,000 health care professionals.

Source: (Pfizer, 2009)

In sum, Pfizer corporate responsibility is fundamental to its business, being directly integrated into all of its activities. CSR encompasses both “what Pfizer does” and “how Pfizer does it”. Through its CSR programs, Pfizer has proved that it responds to the evolving needs of human society and contributes to the wellness of the world population.

## 5. Conclusions

The idea that business has societal obligations has been evident at least since the 19<sup>th</sup> century. Today’s business organizations have responsibilities that go beyond the production and marketization of goods and services and involve helping society to solve important social and environmental problems. In the 21<sup>st</sup> century, a responsible business organization is an enterprise that marries social and environmental responsibilities and economic efficiency.

The social responsibility of business organizations is a multifaceted concept that has different meanings for different people. The dynamism of the CSR concept in the last century has echoed its multidimensional nature. However, it has encouraged businesses around the world to take into account not only their economic responsibilities, but also their social and environmental responsibilities. Thus, business organizations have numerous impacts upon society within they function that go beyond simple market transactions.

Our paper contributes to a better understanding of the way CSR concept is implemented in business organizations. Also, it provides a platform on which further studies can be carried on the same subject.

## Acknowledgements

This paper is supported by the Sectorial Operational Programme Human Resources Development (SOP HRD), financed from the European Social Fund and by the Romanian Government under the contract number SOP HRD/89/1.5/S/62988.

## 6. References

- Berle, A. A.; Means, G. C. (1932) *The Modern Corporation and Private Property*. New York: MacMillan.
- Bowen, H. (1953) *Social Responsibilities of the Businessman*. New York: Harper and Row.
- Carroll, A. B.; Buchholtz, A. K. (2012) *Business&Society*, 8edition. Mason: South-Western Cengage Learning.
- Carroll, A. B. (1999) Corporate Social Responsibility: Evolution of a Definitional Construct, *Business and Society*, 38 (3), p. 268-295
- Craig Smith, N. (2003) Corporate Social Responsibility: Not Whether, but How?, Centre for Marketing *Working Paper No. 03-701*. Available at <http://www.london.edu/facultyandresearch/research/docs/03-701.pdf>.

- Davis, K. (1960) Can Business Afford to Ignore Social Responsibility?, *California Management Review*, 2 (3), p.70-76.
- Fifka, M. S. (2009) Towards a More Business-Oriented Definition of Corporate Social Responsibility: Discussing the Core Controversies of a Well-Established Concept, *Journal Service Science & Management*, 2, p. 312-321. Available at [http://www.SciRP.org/journal/jssm20090400009\\_67003843.pdf](http://www.SciRP.org/journal/jssm20090400009_67003843.pdf).
- Fortune (2011) *Fortune Global 500*. Available at [http://money.cnn.com/magazines/fortune/global500/2011/full\\_list/101\\_200.html](http://money.cnn.com/magazines/fortune/global500/2011/full_list/101_200.html).
- Grayson, D.; Hodges, A. (2004) *Corporate Social Opportunity!* Sheffield: Greenleaf Publishing.
- Hawkins, D. E. (2006) *Corporate Social Responsibility: Balancing Tomorrow's Sustainability and Today's Profitability*. Hampshire: Palgrave.
- Heald, M. (2005) *The Social Responsibilities of Business*. New Jersey: Transaction.
- Mintzberg, H. (1983) The case for corporate social responsibility, *Journal of Business Strategy*, 4 (2), p. 3-15.
- Pfizer (2012) *The Blue Book*. Available at [http://www.pfizer.com/files/investors/corporate/blue\\_book\\_english.pdf](http://www.pfizer.com/files/investors/corporate/blue_book_english.pdf).
- Pfizer (2011) *2011 Financial Report*. Available at <http://www.pfizer.com/files/annualreport/2011/financial/financial2011.pdf>.
- Pfizer (2010a) *Our Impact- Annual Review 2010*. Available at <http://www.pfizer.com/files/annualreport/2010/annual/review2010.pdf>.
- Pfizer (2010b) *Innovative Partnership- Progress Toward Achieving the Millennium Development Goals 2010*. Available at [http://www.pfizer.com/files/responsibility/innovative\\_partnerships.pdf](http://www.pfizer.com/files/responsibility/innovative_partnerships.pdf).
- Pfizer (2009) *Doing the Right Things- 2009 Corporate Responsibility Report*. Available at [http://www.pfizer.com/files/corporate\\_citizenship/cr\\_report\\_2009.pdf](http://www.pfizer.com/files/corporate_citizenship/cr_report_2009.pdf).
- Pfizer (2008) *Doing Things Differently- Annual Review 2008*. Available at <http://www.pfizer.com/files/annualreport/2008/annual/review2008.pdf>.
- Pfizer (2007) *Strong Actions Partnering for Positive Change- 2007 Corporate Responsibility Report*. Available at [http://www.pfizer.com/files/corporate\\_citizenship/cr\\_report\\_2007.pdf](http://www.pfizer.com/files/corporate_citizenship/cr_report_2007.pdf).
- Porter, M. E.; Kramer, M. R. (2006) Strategy and Society: The Link Between Competitive Advantage and Corporate Social Responsibility, *Harvard Business Review*, December 2006, p. 4-16.
- Schwartz, M. S. (2011) *Corporate Social Responsibility: An Ethical Approach*. Ontario: Broadview Press.
- Snider, J.; Hill, R. P.; Martin, D. (2003) Corporate Social Responsibility in the 21<sup>st</sup> Century: A View from the World's Most Successful Firms, *Journal of Business Ethics*, 48, p. 175-187.
- Toma, S.-G.; Stanciu, C.; Irimia, E. (2011) *Landmarks in the evolution of the social responsibility of organizations in the twentieth century*. Proceedings of the 5<sup>th</sup> International Scientific Session Challenges of the Knowledge Society, Bucharest: PRO Universitaria, p. 1352-1360.
- Whetten, D. A.; Rands, G.; Godfrey, P. (2002) *What Are the Responsibilities of Business to Society?* in Pettigrew, A.; Thomas, H.; Whittington, R. (editors)- *Handbook of Strategy and Management*. London: SAGE Publications, p. 373-408.

# REALISING A SUPPORT FOR REDUCE WATER POLLUTION BY NITRATES FROM AGRICULTURAL SOURCES

**TRICĂ Carmen Lenuța**

*Associate Professor, PhD, Faculty of Agro-Food and Environmental Economics, Academy of Economic Studies  
Bucharest, Romania, [carmen\\_trica@yahoo.com](mailto:carmen_trica@yahoo.com)*

**PICIU Gabriela Cornelia**

*Scientific researcher III, PhD, Financial and Monetary Research Centre „Victor Slăvescu”, Bucharest,  
Romania, [gabriela\\_piciu@yahoo.com](mailto:gabriela_piciu@yahoo.com)*

**Abstract:** *One decisive step towards the achievement of a sustainable modern society is represented by the efficient management of water resources. There has been an essential change in most of the governments' economic policy and related strategies, in those water resources of protection activities are now regarded as an intrinsic component of a sustainable development of the human society. Policies related to the field of water resources, devised by competent authorities, must take into consideration general principles and criteria which are specific to the current context of transition from a regulations-based approach, to the gradual introduction and implementation of new economic tools, in perfect harmony with the EU Directives and legislation. This paper takes into account important aspects of legal and economic nature, which to base decisions in the field mentioned. It also presents a model of sustainable water management, with the possibility of introduction in the economic mechanism*

**Key words:** water, pollution, nitrates, agriculture, management

**JEL classification:** Q15, Q25, Q53

## 1. Introduction

Environment protection issues are of particular complexity, address all economic sectors and call for the involvement of both specific stakeholders and of the polluting uses. By taking into consideration all the numerous scientific studies and warnings formulated by water resources research scientists, in 1988, the European Commission decided it was high time a correct and comprehensive policy in this field was formulated and subsequently proposed elaboration of a Water Frame Directive.

Following a decisional process that took almost 10 years, in 1997 the first draft of this legislative act has been made public. This version was submitted to debate within the European Parliament twice: in February of 1999 and in February of 2000. The Water Frame Directive finally became effective once it was published in the December 2000 edition of the Official Journal- OJL 327, under the name “Directive of the European Parliament and of the European Council, 60/2000/EC, on the setting up of a community action framework in the field of water policy.

Due to ever stronger and more numerous pressures put on the available water resources, it has become vital the creation of legislative instruments capable of clearly addressing newly emerging issues and of contributing to the securing of water resources needed for the next generations.

The EU Water Frame Directive extrapolates the water protection field to all the water uses, whilst clearly setting up milestones in this process, so that by 2015, all watercourses of Europe should eventually meet the “good water” status, their uses being sustainable throughout countries in Europe.

## 2. Results and Discussion

The Water Frame Directive (2000/60/EC) represents an ambitious and innovative approach at EU level in the field of water management, its key legislative components referring to :protection of all waters, irrespective of their nature – rivers, lakes, maritime coastal waters, underground waters, identification and implementation of objectives that can effectively contribute to the granting of the “good water” status for all European waters until 2015; active participation of all responsible forces, including the NGOs and local communities, in the activities related to the management of water resources; devising policies which can financially capitalize on waters and which can ensure effective application of the “polluter pays” principle.

In this context, presently, the water management activities rely on the following basic principles:

- Water is a limited and vulnerable resource;
- Water management activities should be based at sub-river basin level;



- Water management activities should integrate both quantitative and qualitative aspects;
- There should be a sub-river basin level solidarity among water users;
- Any polluter will have to pay for the damage incurred to the environment;
- Water can render an economic value;
- Water is not a commercial product.

The EEC 2000/60 Water Frame Directive became effective as of December 22, 2000; according to the provisions of this European Directive, for the first time underground waters were deemed as part of a river basin integrated water management system for monitoring purposes. Programmes will be devised in order to implement measures aimed to secure sufficient underground water resources of adequate chemical quality by the year 2015.

In order to be able to achieve a reduction of emissions coming from agricultural sources, the 91/676/CEE Directive on the protection of waters against the pollution caused by nitrates from agricultural sources, has been issued, which is subordinated to the Water Frame Directive.

Endorsement. Directive no.91/676/EEC on the protection of waters against pollution caused by nitrates from agricultural sources has been fully adopted within the national legislation, by means of the following normative acts:

- Decision of the Romanian Government no.964/2000 on approval of the Action Plan for the Protection of Waters against Pollution with Nitrates from Agricultural Sources and on setting up of the Commission and Support Group for the implementation of the Action Plan for the Protection of Waters against Pollution with Nitrates from Agricultural Sources; this Commission consists of specialists of the Ministry of Agriculture and Rural Development and of the Ministry of Health; affiliated to this Commission is a Support Group, consisting of representatives of “Romanian Waters” National Administration, of river basin committees and of certain specialized institutes, either subordinated or under coordination of the mentioned ministries;
- Joint Order no.425/2001 and 105.951/2001 issued by the Minister of Waters and Environment Protection and by the Minister of Agriculture, Food and Forests, on approval of the by-laws, role and structure of the Commission and Support Group established to implement the Action Plan for the Protection of Waters against Pollution with Nitrates from Agricultural Sources;
- Order no. 740/2001 of the Minister of Waters and Environment Protection, on approval of the nominal structure of the Commission established to implement the Action Plan for the Protection of Waters against Pollution with Nitrates from Agricultural Sources;
- Order no.918/2002 of the Minister of Waters and Environment Protection, on approval of the Code of Good Agricultural Practices for the use of farmers.

Objectives. The main objectives set by the 91/676/CEE Directive and included in the Action Plan for the Protection of Waters against Pollution with Nitrates from Agricultural Sources, are as follows:

- reduction of pollution produced or induced by nitrates coming from agricultural sources;
- prevention of pollution of waters with nitrates;
- Optimization and rational utilization of chemical and organic fertilisers.

### **3. Differentiating between models of water resources management**

One can refer to a typology of the water resources management models, depending on the following characteristics:

- The type of access to the relevant water resource;
- The type of water resource consumption;
- The type of control exerted on the water resources' access and consumption;
- Bearing the costs of water resources' utilization;
- The main framework under which institutions involved in the management of water resources operate;
- The ethics of water resources management activities.

The types of ‘free’ and ‘controlled’ access are defined by taking into consideration the reference organizational system and the pressures exerted by human activities upon the aquatic ecosystems.

One deems as essential to the endorsement and making operational of the two types of access, the degree of knowledge on the aquatic ecosystems' mechanisms, reflected on the way in which the generated water resources' role and importance are perceived and ultimately in the manner in which each water user behaves within the real environment.

In the absence of such behaviour, the ‘control’ costs will be substituted by costs corresponding to damages incurred to the aquatic ecosystems, this leading to a non-sustainable utilization of the available water resources.

Most of replenish able natural resources allow division/sharing and therefore their consumption is almost exclusively of the concurrent type. This is also the case with water resources which may be consumed by users in various amounts, without immediate direct consequences on their parameters.

However, with ever growing number of water users which consume ever increasing volumes of water, the type of concurrent consumption should evolve from a ‘freely expressed’ one towards a ‘controlled/regulated’ consumption type.

Assuming responsibility over the accessing and consumption of water resources will only be feasible to the extent in which the promoted management model does include an essential informational sub-system that can constitute the basis for knowing the dynamics of aquatic ecosystems, for justifying the size of the abstraction rate and the range of compensation measures required, etc.

Without claiming to reflect the whole range of representative cases, one illustrates in the table below, the relation between the type of accessing and the type of consumption in terms of water resources, which leads to the following typology of environment assets in general and of water generated by the aquatic ecosystems, in particular:

**Table 1: Relation between the type of accessing and the type of consumption**

Consumption type  Access type	Shared	Concurrent
‘controlled’	Assets assuming a form of payment– a natural reserve for whose visitation one levies an entrance charge	Private assets
‘free’	Public assets	Common assets

Source: Data processed by authors

#### **4. The type of control related to the accessing and consumption of water resources**

Irrespective of the customary or legislative nature of the normative acts that are specific to this field, the type of control exerted for the accessing and consumption of water resources may either be based on the confrontation model or alternatively, on the cooperation model.

The confrontation model assumes a monitoring activity (exhaustive or by random checking), so that any deviation from the provisions of the water management permit can be quickly identified and subsequently penalized.

For the case of water resources, the costs of monitoring the access and consumption processes, combined with the costs of levying the adequate sanctions are considerable, in proportion with the number of water users.

Under such circumstances, one has to take into account and/or the cooperation model which consists of an assessment of the partnership between the user and the institution (institutions) involved in the management of water resources.

In order to be consistent with the cooperation type of control, whenever one spots infringements of applicable norms and regulations, certain flexible conformation measures must be enforced, by means of:

- Instating certain adequate permissive mechanisms;
- Enforcing temporary conformation exempting mechanisms;
- Allowing an increased flexibility to the penalty enforcing system

Principles and methods used to manage water resources aim to ensure the financial viability and continuity for the water supplying systems, not as an independent purpose in it self, but as a means to achieve the long term scheduled public sanitation and environmental objectives.

The optimization of costs (for investments, overheads, operation and maintenance, etc.), the level of subsidizing, the degree of expenditure recovery, etc. all represent action destinations which have to be employed so that the system becomes viable on long term and thus one avoids discontinuities in the

process of water supplying, water supply infrastructure under-equipping and so forth, which all tend to firstly impact on the least favoured social groups.

## 5. Recovery of costs/expenditures

The recovery of costs based on the collection of water usage fees from the users may be achieved *totally* or *partially*; for the latter case, a diversification of the recovery sources is required, among which the subsidizing mechanism is one alternative.

Criteria which constitute the basis for recovering the costs of water supply are related to the securing of the public sanitation status and to the financial stability of the River Basin Directorates.

Within any given society, each member has the right of benefiting from adequate quality water in sufficient amounts, therefore the public sanitation criterion leads to a differentiation of tariffs (T1), depending on the income and on the degree of comfort:

$T1 = f(\text{income})$  = social tariff applied to the groups with low level incomes;

$T1 = f(\text{comfort}) = f(\text{volume})$  = tariff applied to higher income households;

In accordance with the financial criterion, T2 medium tariff has to cover the whole cost of the water supply service:

$T2 = (C + M + P) : X$  (at market price), where:

C = capital expenditures;

M = cost of assets and services;

P = cost of salaries;

X = the sold volume of water.

The economic criterion calls for a kind of tariff system (T3) applied to water supply that can render the best possible utilization of water (and of all other components of the water supply system). The water resources management models, either undergoing design stages or already implemented, have a significant impact with spatially and over time distributed effects.

In a quintessential formulation, from an ethics standpoint, the water resources management models may respond to a utilitarian concept, based on a descriptive (neutral) or analytical approach, but also to a deontological concept (non-neutral) which is based upon a specification-type approach.

It is obvious that these criteria are often incompatible, which suggests the need to adopt a compromise solution, i.e. a reduced tariff level corresponding to any water consumption that satisfies essential needs (this tariff has to reflect the users' payment affordability) and an ever increasing level of the tariff corresponding to any supplemental consumed amounts, so that the financial requirements of the River Basin Directorates are met.

## 6. Conclusions

- The diversity of physical, geographical, economic and social conditions in which the aquatic ecosystems (components of the natural assets which generate water resources) dwell, coupled with the system of interests and reaction times needed for an efficient management of the water demand and supply ratio, call for setting up an appropriate proportion between the centralism and autonomy of the decision support system, inside which the institutional sub-system has a particularly important place;
- The water resources management models, either undergoing design stages or already implemented, have a significant impact with spatially and over time distributed effects;
- If one endorses the concept "the right to water" is almost equivalent to "the right to life", and then one can have a correct understanding of the extent of the ethics issue of managing the water resources.

## 7. References

- Negrei, Costel (2004), *Economia și politica mediului*, Editura ASE, București.
- Piciu, Gabriela (coordonator), Manolescu, Gheorghe, Dimitriu, Mihail (2002), *Implicații financiare ale deteriorării mediului natural. Studii zonale*, proiect de cercetare INCE-CCFM.
- Scott J. Callan, Janet M. Thomas (2004), *Environmental Economics and Management*, Third Edition, Editura Thomson.
- Trică, Carmen Lenuța, Negrei, Costel (2006), *Economia și gestiunea resurselor de apă*, Editura Paralela 45, Pitești.
- Trică, Carmen, Dobre, Iuliana, *Transnational integrated management of water sources in agriculture for the European water emergency control*, Odessa, Ukraina, 12 th-14th October 2011.

- Vădineanu, Angheluța (1999), Dezvoltarea durabilă, volumul I și II, Editura Universității din București.
- Vădineanu Angheluța (2004), *Managementul dezvoltării. O abordare ecosistemică*, Editura Ars Docendi, București.
- Insittute de Developpement Economique de Banque Mondial (1995), *Evaluation economique des politiques et projets environnmentaux* (un hide pratique), Banque Mondial.

# THE MANAGEMENT OF THE ENVIRONMENTAL RISK FROM THE PERSPECTIVE OF THE FINANCIAL ACTIVITIES

*TRICĂ Carmen Lenuța*

*Associate Professor, PhD, Faculty of Agro-Food and Environmental Economics, Academy of Economic Studies  
Bucharest, Romania, [carmen\\_trica@yahoo.com](mailto:carmen_trica@yahoo.com)*

*PICIU Gabriela Cornelia*

*Scientific researcher III, PhD, Financial and Monetary Research Center „Victor Slăvescu”, Bucharest,  
Romania, [gabriela\\_piciu@yahoo.com](mailto:gabriela_piciu@yahoo.com)*

**Abstract:** *In this document we presented what the management of the environmental risk means from the perspective of the financial activities. I also we described the loan evaluation process from the perspective of the environmental risk management. In the context of the fast development of the banking activities within the field of the sustainable development, we consider that at least a first step of education and informing within this field is mandatory.*

*Evaluating the environmental risk is very important for the financial institutions as well; there even were banks that went bankrupt because of the legal environment standards. The banks have the opportunity, through the smooth involvement of the banking sector into environmental issues, to collaborate with their customers in the environmental risk management.*

**Key words:** sustainable development, environmental risk, banking policy, evaluation

**JEL classification:** Q56, Q59

## 1. Introduction

The value of Romania's natural capital demanded taking measures for nature conservation over the time. The conservation of the natural capital is mandatory not only for ensuring life at present, but also for the coming generations, because it preserves the regional and global ecological balance, it guarantees the regeneration of the biological resources and it maintains the quality of the environment necessary for the society

The most important concern for the natural capital is continuously increasing in the entire world as the environmental damages at local and global level becomes more and more obvious.

Since 2000, the issue of sustainable development has become a banking sector concern by incorporating social and environmental issues in credit policy.

Due to globalization, consolidation and financial industry diversification, banking sector has become more and more important for global business. A certain number of banks have initiated a series of products for sustainable development, they also changed internal and credit, policies, as well as training programs and consulting services, obliging the employees and partner companies to invest in socio-ecological principles of responsibility.

In comparison to other sectors, banking sector had slower response to the new problems presented by development.

Nowadays, the environmental performance evaluation is extremely important for financial institutions too; there are even banks that have reached the bankruptcy case based on legal environmental forms.

This was the cause for which the American Banks reconsidered their banking policy regarding the environment, the main reason being credit risk.

European Banks, unexposed to environmental provisions, initiated the creation of environmental policies later, in the middle of '90s.

In Europe, the main concern was more focused on internal environment than on risk management and later on creating new products, for example the investment funds according to Environmental Protection.

In 1992, "UNEP Declaration of Financial Institutions regarding the Environment and Sustainable Development" was treated during Rio Conference; this was the first step towards the active involvement of banks in sustainable development.

An empirical research, realized in 1995, regarding the activities of the Environmental Protection, has shown that 80% from respondents had implemented certain evaluation instruments of environmental risk. Another assessment of the signatory institutions, made in 1997, came to the idea that many of them created specialized environmental departments.

In 2003, another important step was made at the global level, namely the Equator Principles for regulating financial activity of structured projects.

## **2. What is Sustainability Banking?**

The integration of sustainable development in banking sector is divided two directions:

1) The integration of social and environmental responsibility in Banking Operations through environmental initiatives (for example recycling or increasing energy efficiency programs) or social responsibility initiatives (sustaining cultural events, improving human resources activity and humanitarian donations).

2) The integration of sustainable development in Bank's main activity, by integrating environmental considerations into products, policies and their strategies design (integrating environmental criteria in granting credit and investment strategies, in developing new products that facilitate access to capital business based on sustainable development).

Banks have the possibility of working together with their customers in Environmental risk management through a harmony involvement of the banking sector.

The Environmental risk management facilitates a structured and systematic approach to decision-making process in environmental domain. The force and the value of the risk management approach is that it combines various techniques of evaluation and consultation, uniting them into a consistent whole that gives decision-making approach.

Risk management offers the opportunity to any organization to understand better the conduct of every operation and the ability to respond effectively at the changes of internal and external circumstances.

Environmental Risk Management is significantly different from other types of risks management due to the fact that its particular characteristics reflect the complexity of the environment.

The large number of ecosystems and organisms, the way they interact to each other or with neighbouring systems, generates a high degree of complexity as well as a significant level of uncertainty.

Most times, the decisions refers to long periods of time and are based on multiple assumptions regarding the potential impact, such as, for example, the effect on new generation. Because of the difficulty to make accurate assumptions, decisions are often taken in conditions of scientific uncertainty on the possible consequences.

Factors affecting the environmental risk of management:

- Absence of data or the existence of a small amount of data;
- The need for formulation of hypotheses;
- Natural variability; use of concepts, techniques and new methods from sciences underdeveloped and that is the subject of numerous disputes and controversy regarding the actions to be undertaken;
- Long periods of time(for example, although it should be taken into account by future generations, ecological changes may occur slowly, action because the time lag between causes and effects materialize);
- Potential effects on the environment and economic welfare at local, regional, national, international, global scale and the possibility of irreversible consequences;
- The absence of a direct and clear relation between certain causes and environmental effects.

## **3. Banking policy in environmental risk assessment**

In terms of financial activity, the environmental risk of management involves:

- Systematic integration of environmental considerations in financial institution operations, including a clear definition of the supervisory role of the top management team, staff responsibilities and providing staff training;
- Collecting, evaluating and reporting of information regarding the environment, concerning a proposed transaction;
- A fully informed decision about whether the transaction associated environmental risk is acceptable;

- The control of environmental risks associated with the transaction;
- Realization of any potential benefit to the environment, associated transaction.

Probable examples of environmental activities proposed by a company:

- Continuing pollution generated by current operations
- Historical pollution generated from past operations
- Accident resulting in serious and sudden pollution
- Handling, transport and disposal of hazardous materials
- Excessive use of natural resources
- Use of or trade with – sensitive products in terms of environmental
- Environmental problems like those create risks for the company (Table 1), including.

**Table 1: Banking financial risk classification**

Type of environment	Financial risks	Legal risks	Reputation risks
<b>Air, water, soil</b>	Increasing investment operation costs to comply with environmental standards	Difficulties/delays in obtaining urbanism and environmental license due to settlement requirements or public opposition	Reduced sales where the products are perceived as harmful to the environment
<b>Air, water, soil</b>	Remediation costs, payment of fines or compensations	Forced closure or limitation of enterprise activity	Public objections or of the authorities regulations regarding activity expansion
<b>Air, water, soil</b>	Increased expenses with the removal, handling and transporting of the waste	Claims of third parties	
<b>Air, water, soil</b>	Decrease of the assets value such as land or shares		

Source: Data processed by authors

Many of these risks can not be grasped by the standard processes of financial analysis and therefore, some financial institutions have suffered important losses due to unanticipated problems, health and safety environmental that affected their clients or investments.

For this reason, most of the international banks and many other financial institution have established specific measures regarding the management of environmental risks in order control this risk aspect the operations it carries on.

Environmental risk management is needed because companies, especially industrial enterprises, carry out activities that may pose a danger to human health or because environmental damage.

In addition, a company's tangible assets, especially property or land may be contaminated due to current or past activities. As a result, financial institutions doing business with those companies, whether bankers, either as investors or other involvement with, faces a variety of potential environmental risks. This is true even when a company is or appear to conform environmental legislation in force. Section risk (derived from questions) specific environmental review the loan approach procedures for environmental risk management to be used by bank staff to evaluate business loans. In the frame work of the environmental risk management, there are four key phrases which take place at appropriate times of the credit assessment process (Figure 1).

The use of these procedures allows bank personnel to determine what level of environmental risk management is necessary for each transaction and make the necessary investigations.

Although these are intended for use in analyzing new potential transactions when the client application, they can be used equally well for an existing portfolio, to identify existing loans that may present a medium risk for the bank.

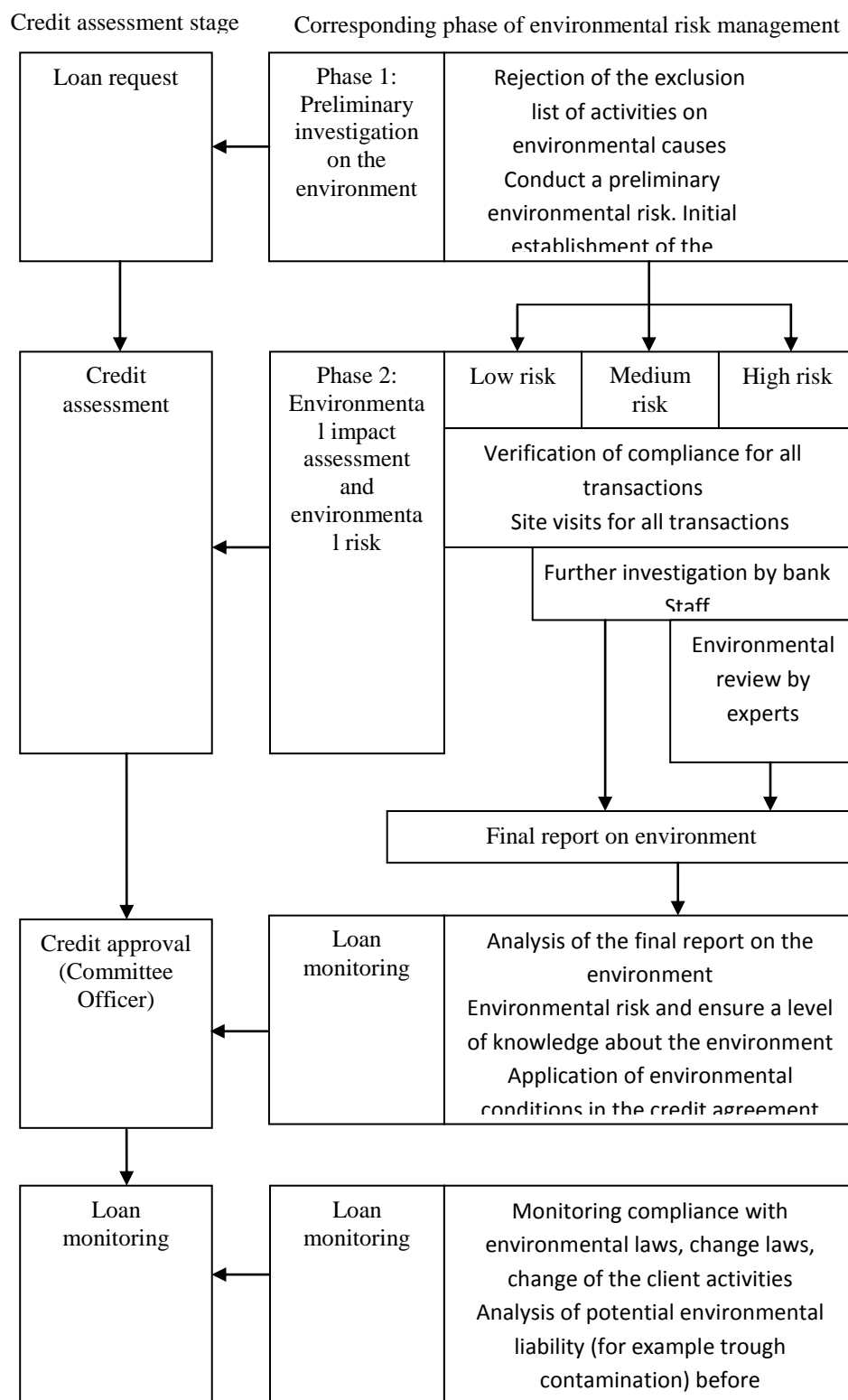
Environmental risks are the possibility of impending events or adverse effects on the environment.

Through an integrated approach to the problems of the environment, social and safety labour associated financial processes in which the bank is participant follows:

- control of environmental risks in order to prevent and minimize them as well as of their adverse effects;
- Ensuring compliance with the provisions of national environmental legislation and regulations in force, the activities carried out with clients, in which.

The bank inspects, the beneficiary customers, the obligation to realize, the projects funded in accordance with these regulations.

**Figure 1: Banking financial risk classification**



Source: Data processed by authors



Bank to promote in the internally financial assessment process, projects with positive impact on the environment and / or social, providing, by the specific policies more attractive conditions than those currently applied in the case of financing operations (differential interest rate, facility to finance).

Identify, assess, monitor and maintain environmental risks to an acceptable level for the bank will be considering by risk categories (high, medium, low).

Identification process and environmental risk assessment involves collecting information on how to analyze customer consider environmental protection, within his business, and financial implications, legal and reputation risks of these on the client and / or bank.

Depending on risk category identified (high, medium) may be used as additional assessment tools: environmental audit (if necessary) and recommendations needed to prevent, minimize, mitigate or compensate for adverse impacts of the action plan / recommendations of the compliance schedule (part of environmental permit). For low-risk transactions, it is not necessary to use the assessment tools mentioned.

Main criteria that influence environmental risk, is the activities developed in the potential client company and environmental impacts, associated with its. In the same time must be considered the information on loan amount, loan duration and the nature of guarantees.

So,

- Loan amount. The environmental risk is also influenced by the loan amount, the bigger the loan, the bigger the potential losses. Often, substantial credits are accorded to industrial units which apply complexes processing technologies and at a larger scale, which use larger quantities of raw materials and generate larger volumes of waste.

- Loan term. The duration of a loan is another important aspect of global risk assessment. The longer the loan term, the bigger and harder it will be to anticipate the exposure to external risk factors and certain problems will be more likely to occur, such as legislative changes or pollution.

- Type of guarantee. Guarantees may take the form of liquid assets such as cash; current illiquid assets such as stocks; fixed assets such as buildings, equipment and vehicles; or land. The guarantee may pose a risk to the lender in a series of cases including the following situations:

- When the one which granted the loan executes the guarantee and becomes the owner of the warranty which may be associated with environmental risk (for example, in case that the terrain is contaminated and exist the possibility to be imposed requirements according to decontamination which require significant expenditure).

- When at guarantee evaluation were not taken into account the environmental damage or lack of adequate performance in environmental (for example, in the case when equipments could help at classification into the newest authorized standards therefore is why have low value or no value).

Through the issues examined in the context of an accelerated development of banking activities in the field of sustainable development, considering that at least a first step of education, information and involvement in the field is necessary.

#### 4. Conclusions

At the end of this work, the most important conclusion is that the banking sector has an essential role in the environmental risk management.

Implementing the sustainable development implies fundamental changes in the way the bank is lead, in the way it defines its financing policies, in the way it chooses its customers, employees, suppliers etc.

If developed in an efficient way, the banking activity for the sustainable development will imply innovation, creativity, and implicitly new benefits as a result of creating new products by developing new markets.

#### 5. References

- Babut, G., Moraru, R. (2000) *Evaluarea riscului ecologic*, Deva: INFOMIN Publishing.
- Daly, H., Farley, J. (2003) *Ecological Economics, Principal and Applications*, Washington: Island Press.
- Eremia, A. & Stancu, I. (2006) *Activitatea bancară pentru dezvoltare durabilă*, București, ASE Publishing.
- Gradinaru, G. (2004) *Bazele statisticii mediului*, București, ASE Publishing.

- Jenche, M (2005) *Sustainability in Finance – Banking on the Planet*, Chicago: University of Chicago.
- Negrei, C. (1999) *Instrumente și metode în managementul mediului*, București, Economica Publishing.
- Platon, V. (2006) *Dezvoltare Durabilă și Reciclarea Materialelor*, București, Expert Publishing.
- Stancu, I. (2006) *Activitatea bancară pentru dezvoltare durabilă*, București, ASE Publishing.
- Tietenberg, T.(2006) *Environmental and Natural Resource Economics*, Instock, Prentice HallPublishing.
- UN, Global Compact (2006) *Principles for Social Responsible Investment*, [http://www.unglobalcompact.org/docs/issues\\_doc/Financial\\_markets/PRI\\_Brochure\\_electronic\\_version.pdf](http://www.unglobalcompact.org/docs/issues_doc/Financial_markets/PRI_Brochure_electronic_version.pdf).

# CURRENT STATUS OF RESEARCH IN THE DOMAIN OF THE PRE - UNIVERSITY MANAGEMENT

**TUTA Ana**

*Phd. Student, Faculty of Economics , Department of management , Lucian Blaga” University of Sibiu Sibiu, Romania, ana\_jhd@yahoo.com*

**VOINIA Claudiu Sorin**

*Phd. Student, Faculty of Engineering, Department of Industrial Engineering, Sibiu, România, voiniac@yahoo.com*

**DUMITRASCU Dănuț Dumitru**

*Ph.D. Professor , Faculty of Economics , Department of management , Lucian Blaga” University of Sibiu Sibiu, Romania, dumitrascud@asconet.ro*

**Abstract:** *In the study, we started addressing the following working hypothesis:*

*- Analysis of the last 15 years revealed a series of data, which reported to the requirements have generated confusion and this often because there was not and there is no relationship between the social, economical, political and educational structures.*

*Research can be conducted in an argument to convince the school managers that they must know this area of management science deeply, they being placed in a position to solve a wide range of issues, each requiring a specific technique.*

**Key words:** school management, management strategies, financial management

**JEL classification:** L32

## 1.Introduction

### 1.1.The need and justification of the research

Current research in university management are imperative for specialists into a school that goes from knowing they had to set a target to define where they want to reach.

Problems, although at first seemed to be clear and precise were complicated due to variables not taken into account at the time. Efforts were focused on two paths:

- One of finding ways and techniques for effective teaching and learning, to ensure school success
- And the other of the management of the school institutions that had to satisfy the requirements of contemporary society.

Regarding the managerial domain of Education , problems are still under construction. The literature works that have appeared related to educational management are few and their main observation is made about the fact that they were made by science education specialists, who wanted to highlight in particular the position of the manager of the educational process , the teacher, and not treat the conduct of the school principal, in terms of institution manager.

Current research in university management are only feeble attempts to set up assembly. Like any part of an overall educational and should be seen in close relationship with what is happening in society. The problem of management training is not specific only to Romania. It has the same reverberations in Eastern European countries too. Basically one could say that Eastern European managers are faced with an avalanche of information and requirements, which sometimes creates confusion, especially in those countries where social and economic structures are far from being harmonized and understand one another.

The lack of a diagnosis based on real research can be translated into Romanian education system as policy deadlock. There was very strong lack of educational policy implemented in targeted goals to be achieved by education reform, to give a sense and respond to current and future social commands.

Orientation to field analysis strategies, methods, techniques specific to the management of the school is motivated by the fact that school managers still use them with shyness, which is reflected directly in the operation of these institutions.

Through the work and research in management school education has been achieved a theoretical

and practical education in the transition area with a background analysis of the school management system, general performance of the functions of management, financial analysis and quality in this area design strategies and methods and techniques used in interactive and interdisciplinary perspective, demonstrating that management is a fundamental characteristic of education conceived as a system, which management claims that this should be done as a management of a system. They need a vision based on theoretical vision of methodological, economic, technical, social, legal and moral aspects to synthesize managerial activity.

## **2. The current state of management in preuniversity education**

Currently two trends are talking about the need to align the requirements demanded of a democratic society, namely decentralization and devolution of functions.

Last refers to the transfer of action from the superior levels to the medium and basic ones, without this being accompanied by the transfer of decision within important problems of the mentioned issue. Decision can occur at levels which conduct the action only on parts, in matters of detail involved. In this sense we can speak about the current way of conducting continuous training, which can decide on county levels for content and progress of the action itself, but is connected to the unified methodology decided by the ministerial level.

School life has shown the need of rethinking, in accordance with changes in social system, the place and role of school managers in the hierarchy of the education system functioning. In order to achieve decentralization and deconcentration of functions with beneficial effects, it is necessary to prepare managers for each hierarchical level, such that they are able to exercise the authority conferred by statute, ensuring efficient operation of the field of competence.

The limits of the educational system established during the transition period refer to:

- Absence of a coherent continuous coordination and the overall system;
- Inability to plan and staff involvement required;
- Inability in preuniversity Romanian education to meet the demands of specific sectors of law, general management, local government, computer services etc.
- Excessive concern for achieving short-term needs, which made it impossible for a unified strategy (work is more visible, if we refer only to tenure teachers exam in preuniversity Romanian education secondary education held in the previous years)
- Fragmentation of training, referring to the dual authority (ministry, economy, power central-local power) if we talk about institutional level, and if we refer to the structure, content areas designed to narrow misfit conditions change;
- "brain drain" to developed countries because the country could not find social affirmation and the needed motivation.

One of the biggest problems faced at present pre-university education in Romania is the lack of specialized managers. Chosen from among teachers, starting from an initial criterion methodical and scientific performance (director candidate must have minimum degree extensive professional training), managers find themselves, often that they do not have the necessary knowledge to ensure business performance. The fact that they have a very good qualification as teachers of a particular specialty does not provide, automatically management qualifications.

## **3. Aspects of the present state of research in preuniversity management**

Currently, between theory and practice there are many noticeable differences when conducting a thorough research on management.

Research efforts undertaken in the last hundred years has revealed a series of optics sometimes convergent, sometimes divergent from how to design management.

Educational field corresponds to precise objectives and targets, based on its ideal realization of educational standing in line with current social development.

When talking about management education it is better that the discussion be based on what happens in other countries in this field. It's not about copying and implementation of foreign models, but the opportunity to study and to learn how problems are solved there.

A theoretical radiography of the current state of Romanian school management must be accompanied by a survey of existing situation in schools in order to analyze the feature then if there are notes and to outline the main solutions that fall in this respect.

### **3.1. Research on managerial work in preuniversity education**

#### **3.1.1. Changes in school management in the context of professionalisation of management function**

This paper presents a theoretical basis for the need professionalisation of school directors in the increasing complexity of business management at this level of change in the management of school education reform in Romania determined by the context and development of European education. Based on the documentation of European education, other models have been identified too, at school level management, which, if proved to be efficient, could be adapted to specific conditions of Romanian education.

#### **3.1.2. Management strategies of the school director in rural areas**

The result of a profound theoretical and practical investigation, the work has the capacity to deal with issues of educational management in schools within Romanian rural areas through an anticonservatory, open mind, in line with contemporary movement ideas.

#### **3.1.3. School as an organization. Democratic - participatory management and its involvement in the school for inclusive education center Beclean**

Paper on the results of a research-action taken towards the practice implications pointing the democratic participatory management at the schools has the organizational plan, targeting the acceptance of change and innovation in education, quality organizational climate, professional satisfaction, the level of occupational stress and perception of the school community inclusive type CSEI Beclean but also in teacher-class relationship plan, aiming at the students' school performance and the educational institutions of their degree of sociability.

#### **3.1.4. Socio-economic management in the pre-school organizations**

The work scrolls through one of the most important current issues in the pre-school organizations, namely that related to the presence of school performance in the context of the existence and performance of the decentralization process and therefore the Romanian educational funding.

Aim of our work was to identify and analyze than a series of socio-economic aspects that characterize the school organization regarded as representative entity in secondary education.

#### **3.1.5. Conceptual and practical approaches to financial management accounting education institutions in Romania**

The work addresses a number of elements on the financing of educational institutions in Romania, the general approach by management functions and its features, approaches from the literature of financial management accounting and propose a new definition to refer only to public institutions in Romania.

### **3.2. Management research in the educational process**

#### **3.2.1. Management of preuniversity-school education in Oltenia**

The work is justified because it helps the managers of the school institution not as a "handbook" but putting them available to the theories, tips, projects, methods, techniques, etc.. likely to bring him in a position to propose objectives and to be able to reach efficiency in his work, to be able to build a culture of quality in school, etc.

#### **3.2.2. The management of preuniversity accession process of Romania's educational requirements of the European Union**

Regarding the timeliness and significance of themes for school education, the purpose of investigation is the reasoning advanced methods of preuniversity school education and in determining the educational management methodology in education in preuniversity Romanian education in terms of integration and globalization.

#### **3.2.3. Improving business management in higher education (on the example of Hunedoara County)**

Given the structure of school education, it is presented pre-school, primary and secondary school in the county of Hunedoara, a county that is part of the Western Region of Romania. In Hunedoara county the educational activity is presented in relation to activities undertaken in this county, and to draw some conclusions, given the opportunities and threats in this county, was carried out a SWOT analysis.

#### **3.2.4. Design and management curriculum at the school organization.**

The name of the study highlights issues and the methodological- epistemologico option for one approach in the field. It refers, on the one hand, to the consideration of curriculum design as a specific activity curriculum, and on the other hand, in assessing the design and management work in curricular activities there are two interrelated systems, but within two curriculum processes.

### **3.2.5. Human Resources in the process of performance and the the quality of management education in Romania after accession, with applications in higher education.**

The work carried out theoretical analysis and practical contribution to human resources to ensure quality performance and education in preuniversity Romanian education in education system from future systemic, interactive and interdisciplinary, which is configured within a matter of reflection, but also the application for researchers and managers in the educational field, concerned to align to European and world standards.

### **3.2.6. Research on quality management system in preuniversity Romanian education technical and vocational secondary education**

The thesis outlines some concepts terminology used in quality assurance, technical and vocational secondary education.

### **3.2.7. The management and the culture of quality at the level of school unit**

Research relates to quality assurance in education even identified a number of dilemmas and tensions that define some loaded axiological value poles, between which there is a continuum of possible options for each educational system remains to choose a specific resolution finding its point balance taking into account both cultural and educational policy elements.

## **4. Conclusions and personal contributions**

Analysis of current situation and recent trends, with precise objectives and competencies take into account the following:

- Content of educational activities, information, skills, abilities;
- human material: teachers, students, skills, interests, motivation;
- Material conditions: time, space, equipment, funding
- Prognosis in relation to the country's social economic dynamics in general.

The world has realized that the economic success of states are determined directly on the quality of education and that the most effective human capital factor of production is expressed in knowledge, skills, creative abilities and moral qualities of members of society that largely formed education system, management strategies applied.

Following the results of analysis conducted surveys and studies documenting the current state of research on university learning management system were analyzed the following objectives:

- The importance and necessity of implementing a performance management system in pre-schools;
- Quality management in technical and vocational secondary education;
- The training of school education
- Management of motivation;
- Communication Management;
- Human resources management;
- Financial management of school organizations
- Risk management in pre-university
- The quality of university education
- Education Technology

Analysis of educational needs in terms of integration into the European Romanian university education

- methodical aspects of teaching
- Interdisciplinarity and transdisciplinarity quality growth education;
- educational and vocational guidance.
- Evaluation of teaching
- Systematic orientation of the evaluation document to the skills and capacity assessment ability and attitudes in the context of situations and tasks as close to real life, the future of learners and their specific image to be the next education cycle or the labor market.
- The issue of decentralization of school education for the future.

Status of research in the field shows that management is not resolved only interdisciplinary that seeks efficiency and effectiveness criteria for educational success through superior use of human resources, content, processes, relationships, specific strategies.

Maturation stage evolution of the concept shows the new disciplines of science and art of the teacher to direct their own activity and education, to achieve the proposed objectives, content and resources to train, mobilize and coordinate the work of institutional decision-making and use strategies (methods, means,

forms of organization, style), to achieve expected performance, to find and solve the most varied conditions necessary to the educational success.

## 5. Bibliography

- Petrescu, (2004) European Management, Expert Publishing House, Bucharest
- Delia Mariana Ardelean, (2010) *Management strategies for rural education "Babes-Bolyai"* Cluj, Faculty of Psychology and Educational Sciences Doctoral School "Education, Development, Cognos"
- Burghilea (Laudoniu) Mihaela Cristina, (2010) *Socio-economic management in the pre-school organizations*.
- Bunăiașu Claudiu Marian (2009) *Curriculum design and management at the school*, the University of Bucharest, Faculty of Psychology and Educational Sciences, Doctoral School,.
- Chervase Carmen, (2010), PhD thesis, *Changes in school management in the context of professionalisation of management function*, Bucharest University, Faculty of Psychology
- Peter Ciungu, Chisinau, (2008) *University management education process of Romania's accession to European Union requirements*, the International University of Moldova
- Ciurea Vergil, (2008) *Improvement in pre-management activity* (on the example of Hunedoara county), University "Lucian Blaga" of Sibiu, Faculty of Economics, , Sibiu
- Gheorghe Iuliana, (2007) *Education in pre-business management in Oltenia*, Lucian Blaga University of Sibiu, Faculty of Economics,.
- Adriana Manea Denisa, (2010) *School as an organization. management of participatory democracy and its involvement in the school for inclusive education center Beclean*, University "Babes-Bolyai" Cluj-Napoca, Faculty of Psychology and Educational Sciences,
- Matic Liviu Marian, (2007) *Conceptual and practical approaches to financial management accounting education institutions in Romania*, ASE, Faculty of Accounting and Management Information Systems, , ASE Bucharest
- Dorina N. Aurica, (2010) *Research on the quality management system and vocational technical secondary education*, University "Transilvania" of Brasov Faculty of Engineering Technology and Industrial Management, , Brasov
- Tatiana Popon, (2007) *Human Resources and Performance Assurance process quality management education in Romania after accession, with applications in pre-University "Lucian Blaga"* Sibiu, Faculty of Economics, , Sibiu

## LEADERSHIP'S INFLUENCE ON OTHERS

*TUTULEA Anca*

*Junior teaching assistant / Ph.D. student*

*Faculty of Economics, Lucian Blaga University, Sibiu, Romania, anca.tutulea@ulbsibiu.ro*

**Abstract:** The article tries to explore different perspectives and points of view to understand the importance, the necessity and utility of practicing leadership in organizations, in order to improve performance and to consolidate the unity of members. Understanding the importance of leadership is the key to every business success, because leadership has so much influence in people's lives. The importance of leadership is a key ingredient to successful businesses and championship teams, and organizations that have this synergy tend to be the ones on top.

**Key words:** leadership, performance, follower.

**JEL classification:** M21.

Known as a social phenomenon, leadership has been studied from various perspectives. Leadership is argued to be a social and at the same time a relational influence process that occurs within a social system (Kempster, Parry, 2011). In Yulk's point of view, cited by Jun Yan and James G. Hunt (2005), leadership involves a process whereby intentional influence is extended by one person over other people to guide, structure and facilitate activities and relationships in a group or organization. Although, it is well known that leadership behavior and effectiveness are influenced by how leadership is perceived by others. Because leadership in organizations is an inherently multilevel phenomenon, as individual, team, unit, and organizational level, scientists and practitioners interested in leadership phenomena have long recognized that leaders can have significant effects on collectives including teams, units, and organizations (DeChurch et al., 2010). According to Hiller (2011), leadership is a driving force in the organization of individuals, teams, and entire organizations and enables individuals to be successful, small teams to synergize, and entire organizations to accomplish goals through the differentiated yet synchronized efforts of these individuals and teams.

Leadership has been viewed as both a necessity for survival and as a strong competitive advantage for organizations (Barrett, 2011).

Twenty years ago, the understanding of leadership in organizations was dominated by the classic two-factor approach focusing on task and relationship behaviors, known as transactional leadership and transformational leadership (Hernez-Broome G., Hughes R.). Contemporary leadership theories began to emerge in the late 1970s, when Burns developed a comprehensive theory to explain the differences between the behaviors of political leaders by using the terms "transactional" and "transformational" leadership (Jogulu, Wood, 2008).

Transformational leadership theory has been profoundly researched for over twenty years by many specialists. The theory extends behavioral approaches to consider the actions of leaders who stimulate effort from their followers. Transformational leaders encourage followers to transcend their self-interest and increase their awareness of valued outcomes by engaging in four types of behaviors: idealized influence, inspirational motivation, intellectual stimulation, and individual consideration (DeChurch et al., 2010). According to Jogulu (2008), transformational leaders were defined as people with inspirational values, who exhibited nurturing, caring and displayed consideration towards their followers and, along years, transformational leaders were believed to have the ability to identify prospects in their followers and then to encourage and motivate them to develop to their fullest potential and hence achieve personal and organizational goals. Also, transformational leaders were considered to have the capacity for developing and fostering self-worth and self-confidence amongst their staff.

In addition, according to Jogulu (2008), transformational leadership style emerged as the most appropriate style of leading in contemporary organizations in the West where external changes in the environment are. Such dramatic changes in the environment accompanied by diversity in the workforce have instigated the emergence of transformational leadership to become the prominent leadership profile in contemporary organizational settings. It is also seen as visionary with long term direction and planning capacity. Transformational leaders are described as inspirational people who constantly communicate organizational vision, direction and strategies to their followers. These leaders aspire to transform the



internal organizational practices to better fit the changes that are happening in the external environment. In addition, they are characterized by thinking beyond internal workplace constraints through initially understanding and adapting to the existing work culture and subsequently attempt to expand the organizational culture to better fit the global surroundings. (Jogulu, Wood, 2008).

Transformational leadership is essentially leadership that sets high expectations, focuses on higher order follower needs, and generates a greater willingness to adopt challenging goals, thereby increasing follower motivation and elevating performance to higher levels of accomplishment (Cole et al., 2011). Transformational leadership is important because it leads followers' deeper values and gives a sense of higher purpose and commitment. Transformational leaders provide compelling visions of a better future and inspire trust through seemingly unshakeable self-confidence and conviction (Hernez-Broome G., Hughes R.). Furthermore, transformational leadership has achieved prominence because it is a style built around behavioral attributes which inspire, empower, nurture and develop staff in organization (Jogulu, Wood, 2008).

In contrasting of all these, Burns defined transactional leaders as people who emphasized work standards, and had task oriented aims, people who performed their leadership within the organizational constraints and adhered to the present organizational rules and regulations. These leaders' aimed at making sure that all the regular organizational tasks were completed on time. This was usually achieved through rewards or disciplining of followers in the style of a transaction. The implicit understanding was of a task needing to be carried out and if satisfactorily completed, the reward would be forthcoming. Such reward based action was intended to influence and improve employee performance (Jogulu, Wood, 2008).

The problem of leaders shaping collective emergent phenomenon sits at the intersection of two theoretical sub-fields; one concerned with the dynamics of leaders, followers and their interactions, and the other focused on understanding the emergent characteristics necessary for individual effort to combine in ways that produce synergistic outcomes (DeChurch et al., 2010). Transactional leadership is characterized by mutually beneficial exchanges between parties to optimize mutual benefit including the accomplishment of necessary organizational tasks and tends to produce predictable and somewhat short-lived outcomes (Hernez-Broome G., Hughes R.).

Today, specialists believe that effective leadership is commonly viewed as central to organizational success, and more importance is placed on leadership development than ever before. Therefore, according to Gina Hernez-Broome and Richard L. Hughes, from Center for Creative Leadership, development today means "providing people opportunities to learn from their work rather than taking them away from their work to learn". The last two decades they have witnessed something of an explosion of interest in leadership development in organizations. According to their point of view, some of the most noteworthy issues and trends in the field of leadership development in the past 20 years fall under two general headings like the proliferation of leadership development methods and the importance of a leader's emotional resonance with and impact on others.

According to Gilley et al. (2011) leadership can be associated within a competence and knowledge framework rather than with a traditional role or status model. The following roles were proved to be common among all leaders (Gilley et al., 2011): career development, employee growth and development plans, problem solving, self-esteem, goal setting and decision making, delegation, performance improvement, developmental evaluations.

With leaders as the focal point of leadership and because time plays an important role in followers' perceptions about leadership it is very important to focus on the real impact between leader and follower. In 1973, Henry Mintzberg studied many leaders and managers on their daily activities and from that time a huge number of studies showed that leaders spend at least 70–90% of their time communicating with their followers (Bluedorn, Jaussi, 2008). In this process of sending information from leaders to followers time is essential. In the field of leadership studies, leadership is not an a temporal phenomenon and many aspects of leadership are time dependent (Shamir, 2011). Bluedorn (2008) suggest that the amount of time any given follower spends in a context will determine perceptions of the amount and nature of individualized consideration from the leader and that's why the followers perceptions about leader form over time.

In many different conceptualizations of the phenomenon, leadership is significantly about motivating people and gaining their commitment, and effective leaders change the way people feel (Hiller et al., 2011). Also in their research, Cole et al. (2011) observed that the empowerment of followers is one of the main differentiators between transformational leadership and transactional leadership, because the latter does not seek to empower, but merely influence team members' behavior through exchange-based relationships.

Cole et al. (2011) consider team empowerment as a mediating process because, over the last two decades, both researchers and practitioners have increasingly recognized its association with team performance. Indeed, enhancing team empowerment increases team performance by increasing team level motivation. The elements of this model are referring to input factor as leadership behavior, the mediator factor as team empowerment and the output measured in team performance. In practicing the model essential are the leader of the team, the individuals of the team and the team agreement about the leader's behavior, which will influence in a positive or a negative way the results. The same theory is mentioned by Shamir (2011) and it never specifies how long it takes the leadership input to affect the mediator (e.g. trust, efficacy perceptions), and how long it takes the mediator to affect the final outcome (e.g. extra effort, organizational citizenship behavior, performance).

Related research on empowering leadership has deliberately focused on teams (Vecchio, Justin, Pearce, 2010). According to Cole (2011), empowerment is defined as the extent to which team members have the freedom to choose how they perform their tasks, are competent to perform their tasks well, sense that their work is meaningful, and believe that their work will impact the effectiveness in their organization. As stated by Vecchio, Justin and Pearce (2010), empowering leadership is a style of leadership that targets employees to develop self-control and to act on their own, and this empowering leadership can be viewed, therefore, as essentially an approach that offers prescriptions to leaders for arranging the distribution and exercise of power.

It well known that empowerment is able to unleash a team's potential, enhance its motivation, and allow it to be more adaptive to its working environment. To achieve these ends, transformational leaders use empowering behaviors such as delegating responsibilities to team members, encouraging team members to question traditional ways of doing things while challenging them to try creative approaches to performing work, and enhancing team members' capacity to think (Cole et al., 2011). Studies of workgroups have reported the superiority of empowerment, either as a direct or indirect effect. (Vecchio, Justin, Pearce, 2010)

Leaders who show transformational leadership behavior and create consensus among team members will be perceived as being the most transformational and that is why team empowerment is going to be especially advantageous because a team's leader is usually considered as the motivating influence and its members are excited, energized, and dedicated to him (Cole et al., 2011). Researchers stressed that transformational leaders help to realign the values and norms of the organization to promote and implement change and also are able to effectively lead the organization and its members. Realigning organizational values by changing management practices and focusing on subordinate involvement and empowerment are some of the valuable strategies frequently exhibited by transformational leaders when organizations encounter severe crises (Jogulu, Wood, 2008). Transformational leadership and behavioral leadership theories suggest that leadership affects the way individuals view themselves and relate to the organization, the leader, and others within the organization on dimensions such as satisfaction, commitment, cynicism, self-esteem, and identification (Hiller et al., 2011).

Vecchio, Justin and Pearce (2010) define empowering leadership as behaviors that share power with subordinates. They explain that the sharing of power such that self-directedness is enhanced should reasonably be expected to generate a higher level of subordinate performance and also, greater self-directedness resulting from empowerment should be associated with superior subordinate attitudinal response such as higher job satisfaction. Ultimately, a leader is responsible for improving performance (Gilley et al., 2011). Recent decades have witnessed the rise of employee empowerment, movement which showed that employees who are given greater opportunities for self-direction, sooner or later will manifest superior outcomes, such as higher levels of job performance and job satisfaction (Vecchio, Justin, Pearce, 2010). According to Hiller et al. (2011), specific outcomes that were categorized under the motivation process include efficacy and general motivation.

The dominant theoretical paradigm in leadership studies focuses on the relationships between leader characteristics or behaviors and the hypothesized outcomes of these characteristics or behaviors. The leader characteristics may include the leader's background, skills, personality, or self-concept, and the leader behaviors may include a specific behavior or a broader behavioral style like transformational leadership. The organizational outcomes include subordinate performance, group and organizational performance, subordinate job attitudes, and turnover but also influential in the domain of leader behavior are taxonomic efforts specifying more narrowly-defined behaviors (DeChurch et al., 2010). Typically, leadership outcomes include follower attitudes (satisfaction, commitment, trust), behaviors (extra effort, cooperation, organizational citizenship behavior), and performance such as group cohesion, collective efficacy, organizational culture, and unit performance (Shamir, 2011). According to Shamir research

(2011) transformational leadership would affect outcomes as follows: efficacy perceptions after three months, followers' commitment to the organization after six months, follower's individual performance after one year, and followers' level of moral development or their unit's performance only after three years (Shamir, 2011).

In an effort to understand the antecedents of job performance, leadership research has traditionally emphasized the relationship between leaders and followers as individuals (Cole et al, 2011). Bluedorn (2008) observed that follower expectations and perceptions of a leader may or may not change depending on time, explaining that less mature followers will have less time with their supervisor, and thus will expect less consideration-based leader behavior. Team members' consensual perceptions about the quality of their managers' leadership behavior is the important illustrative variable for understanding the influence of leadership within teams (Cole et al, 2011).

Along time, managers tried to incorporate power sharing in a manner that seeks to motivate employees to strive for higher levels of accomplishment within a hierarchical system. Many specialists suggested that leaders should not totally abdicate their responsibility for providing vision and strategic direction, but instead should develop a two-way social influence dynamic with their subordinates while also promoting greater subordinate-to-subordinate sharing of job knowledge, power, resources, and information (Vecchino et al, 2010). Leadership researchers have long acknowledged the importance of a manager's leadership behavior in shaping team members' psychological and work group climate perceptions and performance. As leaders, managers transmit their belief systems to team members through role modeling, providing guidance in the form of direct and indirect feedback, and by reinforcing behavior that supports a leader's favored achievement orientation (Cole et al, 2011). A manager's leadership behavior in supervising subordinates as a group influences the performance in and of teams (Cole et al, 2011).

In general, leadership evaluation in organisations has been reported to be skewed, discriminatory and prejudiced due to the absence of clear guidelines in the evaluation processes. (Jogulu, Wood, 2008).

The dynamic, rapidly changing business environment demands that organizations pro-actively embrace change, creativity, and innovation to remain competitive. As a solution, researchers propose a new dimension of leadership, named developmental leadership, which is considered to be the process of equipping people with the knowledge, skills, and opportunities they need to grow, develop, change, and become more effective (Gilley et al., 2011).

According to Gilley et al. (2011), developmental leadership positive attributes might be as follows:

- involves creating a synergistic relationship with employees, the primary benefit of which is the establishment of a collegial partnership based on two-way communication, trust, and honesty, while non-judgmental, free of fear, personal, and professional;
- allows leaders the opportunity to better serve their employees through a variety of activities such as integrated communications, developmental evaluations, performance growth and development activities, and reward and recognition systems used to improve employees' accomplishments and development; the result is motivated, productive employees, ready to accept challenges, take initiative, innovate, and creatively solve problems. In other words, developmental leaders do not develop people but equip people to develop themselves.

Also, several trends will have a major role in our future understanding and practice of leadership and leadership development. According to Hernez-Broome G., Hughes R., these trends represent the critical role changing contexts will play in leadership development:

- Leadership competencies will still matter;
- Globalization/internationalization of leadership concepts, constructs, and development methods;
- Increasing interest in the integrity and character of leaders;
- Pressure to demonstrate return on investment;
- New ways of thinking about the nature of leadership and leadership development.

In conclusion, nowadays, to be successful implies to be concentrate on how to really motivate, determinate and conduct all human resources in every organization, because good leadership is the key to performance improvement. And speaking about human resources, good leaders are precious resources in every organization. This is why organizations should not neglect to invest in developing their leaders, because leadership influences employee performance.

### **Acknowledgements:**

Research conducted within the project SOPHRD/6/1.5/S/26, cofinanced by the European Social Fund through the Sectoral Operational Programme “Human Resources Development” 2007-2013.

### **References:**

- Barrett, P., Klenke, K., Haug, J.C., Coaching and Leadership Fitness: An Adlerian Holistic Approach to Leadership Effectiveness, *Leadership Review*, Issue: Vol. 11, Spring 2011, [http://www.leadershipreview.org/2011spring/article4\\_spring\\_2011.asp](http://www.leadershipreview.org/2011spring/article4_spring_2011.asp)
- Bennett, B., 2004, Leadership development – the use of self-managed, work based, learning, Development and Learning in Organizations, Vol.18, no.5, 4-6
- Bluedorn, A.C., Jaussi, K.S., 2008, Leaders, followers and time, *The Leadership Quarterly* 19, 654-668
- Burke, C.S., Stagl, K.C., Klein, C., Goodwin, G.F., Salas, E., Halpin, S.M., 2006, What type of leadership behaviors are functional in teams? A meta-analysis, *The Leadership Quarterly* 17, 288-307
- Cole, M.S., Bedeian, A.G., Bruch, H., 2011, Linking leaders behavior and leadership consensus to team performance: Integrating direct consensus and dispersion models of group composition, *The Leadership Quarterly* 22, 383-398
- DeChurch, L.A., Hiller, N.J., Murase, T., Doty, D., Salas, E., 2010, Leadership across levels: Levels of leaders and their levels of impact, *The Leadership Quarterly* 21, 1069-1085
- Gilley, J.W., Shelton, P.M., Gilley, A., 2011, Developmental Leadership: A New Perspective for Human Resource Development, *Advances in Developing Human Resources*, 13(3) 386-405
- Hambley, L.A., O'Neill, T.A., Kline, T.J.B., 2007, Virtual team leadership: The effects of leadership style and communication medium on team interaction styles and outcomes, *Organizational Behavior and Human Decision Processes* 103, 1-20
- Hernandez-Broome, G., Hughes, R.L., Leadership Development: Past, Present and Future, Center for Creative Leadership, <http://www.ccl.org/leadership/pdf/research/cclLeadershipDevelopment.pdf>
- Hiller, N.J., DeChurch, L.A., Murase, T., Doty, D., 2011, Searching for Outcomes of Leadership: A 25-Year Review, *Journal of Management*, Vol.37, No.4, 1137-1177
- Jogulu, U.D., Wood, G.J., 2008, A cross-cultural study into peer evaluations of women's leadership effectiveness, *Leadership & Organization Development Journal*, Vol.29, No.7, 600-616
- Kempster, S., Parry, K.W., 2011, Grounded theory and leadership research: A critical realist perspective, *The Leadership Quarterly* 22, 106-120
- Leslie, J.B., 2009, What you need, and don't have, when it comes to leadership talent, *The Leadership GAP*, Center for Creative Leadership
- Lowder, T., Five Dimensions of Effective Leadership: A Meta-Analysis of Leadership Attributes & Behaviors, <http://ssrn.com/abstract=975559>
- Martin, A., Willburn, P., Morrow, P., Downing, K., Criswell, C., The Changing Nature of Leadership, Center for Creative Leadership
- Philips, D., 2009, The Similarities and Differences between four Leadership Models and How They Might Address Contemporary Leadership Issues and Challenges, Issue 04, Swiss Management Center, <http://ssrn.com/abstract=1392870>
- Purvanova, R.K., Bono, J.E., 2009, Transformational leadership in context: Face-to-face and virtual teams, *The Leadership Quarterly* 20, 343-357
- Shamir, B., 2011, Leadership takes time: Some implications of (not) taking time seriously in leadership research, *The Leadership Quarterly* 22, 307-315
- Vecchio, R.P., Justin, J.E., Pearce, C.L., 2010, Empowering leadership: An examination of mediating mechanisms within a hierarchical structure, *The Leadership Quarterly* 21, 530-542
- Wilson, M.S., Yip, J., 2010, Grounding Leaders Development: Cultural Perspectives, *Industrial and Organizational Psychology*, 3, 52-55
- Zander, L., Mockaitis, A.I., Butler, C.L., 2012, Leading global teams, *Journal of World Business*, doi:10.1016/j.jwb.2012.01.012
- Yan, J., Hunt, J.G., 2005, A Cross Cultural Perspective on Perceived Leadership Effectiveness, *International Journal of Cross Cultural Management*, Vol 5(1):49-66

- Zander, L., Butler, C.L., 2010, Leadership modes: Success strategies for multicultural teams, *Scandinavian Journal of Management*, 26, 258-267

# THE PROCESS OF CHANGE IN ROMANIAN BANKING SYSTEM: THE DIAGNOSIS PHASE

**VĂRZARU Mihai**

*Professor, Ph.D, Faculty of Economics and Business Administration, Management-Marketing Department,  
University of Craiova, Craiova, Romania, mihaivarzaru@yahoo.com*

**ALBU Carmen Cristina**

*Ph.D. Student., Faculty of Economic Sciences and Business Administration, "Transilvania" University Braşov,  
Brasov*

**VĂRZARU Anca Antoaneta**

*Teaching assistant, Faculty of Economics and Business Administration, Economics  
Department, Accounting and International Business, University of Craiova, Craiova, Romania*

**Abstract:** *Organizational structure and organizational culture are two of the base elements to make the change and performance. Methods offered by Mintzberg and Crozier, Hofstede and Schein, Ernst and Janor give a good opportunity for the analysis of influence that structural variants have on collective intelligence and performance organizations. Our study proposes to test the functionality of the structure, of organizational culture and life positions where employees found themselves within the bank system and refer to system failure which must focus on organizational change actions. Diagnoses were made using questionnaires for data collection, statistical method and grid environments in data interpretation. Both questionnaires and grids of interpretation have been validated by multiple checks and use the literature and managerial practice.*

**Key words:** performance, change, diagnosis, structure, culture

**Jel classification:** M10, M21, M54

## 1. Introduction

The increase of organizational performance has reached the stage at which it can no longer be disregarding the concepts of organizational change, sustainable development and social responsibility. Analysis of existing situation from the point of view of the structure created to achieve the performance, cultural support, the social climate achieved through leadership style and motivational mix, represents the debut of change process. The study focused on bank branches of BCR, ING Bank, Piraeus Bank and Raiffeisen Bank in Dolj County. The research methodology used survey with questionnaires and scales interpretation of results (Person), the scheme of life positions in the organization (Ernst), graphical representation of structural equilibrium and cultural norms (de Person) and statistical averages. The sample represented 45% of staff of all branches involved and meets the requirements of a scientific survey.

For data collection and interpretation were used three types of questionnaires, with their assessment grids:

- diagnosis of structural forces in the organization;
- diagnosis of dominant norms in the organization;
- identify life positions in the organization.

Data processing was done in the first phase (which is the subject of our study) in each branch, then moved to strengthen its analysis at a global level, by aggregating all responses. From the results obtained have been found a low level of variation on all variables studied, which led us not to look in detail and through more sophisticated methods, subsequently confirmed and by checking assumptions related to the profile at the banker at the level of system.

## 2. Structural diagnosis

To facilitate comparison between research results and current structural trends as Mintzberg's conception, the object of our study is the retail banks sector. Like many other sectors, banks are today a place of increasingly important changes and more frequent and are asking about their defensive or offensive strategies. These mutations are not the result of simple hierarchical intervention, but a better appreciation of the environmental factors and coordination mechanisms review, very deeply rooted in old and conformist industry.

To understand the need for these changes in banking sector, we consider an analysis in line with Mintzberg's work. In his work "Structure and dynamics of organizations" (1982), when the issue of retail

bank organization, the author uses the term "bureaucracy cloned" to emphasize that it is a hybrid of the divisional structure and mechanistic type bureaucracy. Indeed, the banking organization is distinguished from other types of services enterprise by the coexistence of an administrative pole, often called office, and a commercial-oriented, agents' network. Bessire (1999) evokes also the similarities that exist between distribution companies and activity of bank in detail. Organization of trade enterprises articulate, outside management, around two pivots, one operational, consisting of operations, purchasing and logistics, and administrative one, containing activities of administration, finance, IT, marketing and human resources. In banking domain, this duality between relocated and central activities is found in the distinction between front office and back-office (de la Villarmois, 1999).

From this perspective, the banking example illustrates perfectly the fact that bureaucratic organization seems lacking in the means by its functional coordination and clippings. Insulating activities and hierarchy as the fundamental principle of regulation is a factor which does not facilitate responsiveness to the complex and uncertain environments. Coexistence of mobile and unsafe environment, with a rigid organizational structure, should encourage banks to modify not only the content of their strategies, but also to use and review design of their own mechanisms of conception.

For banks, especially those of retail, operational actors play an intermediary between reflection and strategic action. Their participation in strategic approach is restricted to the operationalizing phase, without any intervention in formulating ideas. But these operational roles of information and control require to be completed when the developments and uncertainties of the environment is accelerating. A stronger commitment of operational staff would constitute a strategic approach to improve the information process and allow management to accede to the points of view closer to the current work, which knows not directly.

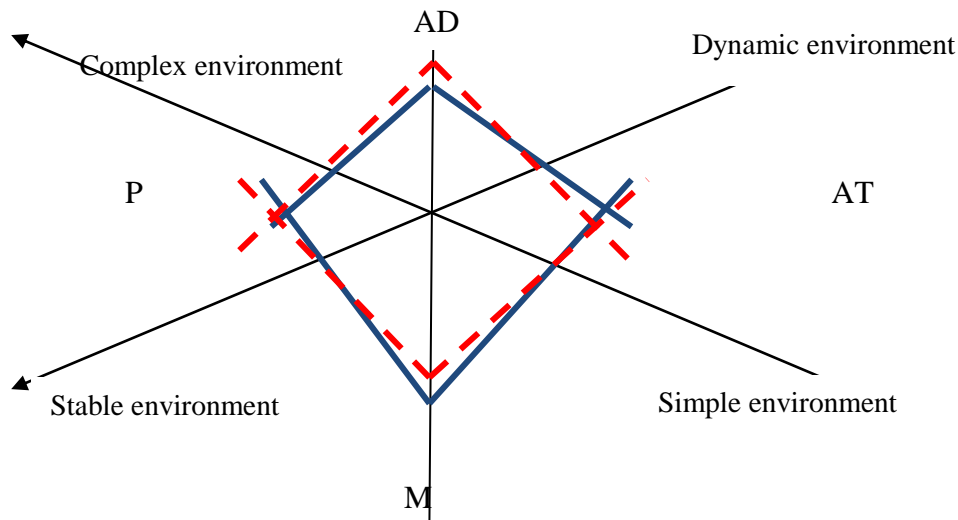
Excess reactivity obtained by participating operational employees, their best approximation of the strategic guidelines and changing the role of managers based on institutional developments and environmental advocates' for the decentralization of strategic and structural changes required. To make such processes, Burgelman (1991) recalls the "autonomous strategic processes", and Von Krogh and Roos (1995) "strategic conversations" that allow enrichment and dissemination even individual reflexes.

This new conception of the articulation between structure and strategy notes that the strategic process corresponds to a strategic interactive concept of collaboration between management, which proposes a framework and supportive of proposals by employees. The observed context foresee the exciting prospects in order to solve the link between strategy and control issues. From this perspective, a better adaptation of the bank requires more organizational readjustments, to strengthen the adhocratic force and enhance employees' work autonomy. The results obtained from the processing data are shown in Table 1 and in figure 1.

**Table 1: Overall results of processing structural diagnosis**

No	Branch	No. of employees	No. of respondents	Type of structure							
				AT		M		P		AD	
				E	D	E	D	E	D	E	D
1	BCR Erste	41	11	2,66	2,68	3,21	2,82	2,33	2,58	2,31	2,68
2	ING Bank	12	8	2,48	2,54	3,44	2,95	2,69	2,81	2,65	2,91
3	Piraeus Bank	14	8	2,75	2,61	3,60	3,10	2,61	2,75	2,51	2,88
4	Raiffeisen Bank	13	9	2,81	2,62	3,35	2,79	2,43	2,68	2,50	2,94
5	TOTAL	80	36	2,67	2,62	3,38	2,90	2,50	2,69	2,48	2,84
6	DIFFERENCES	*	*	-0,05		-0,48		+0,19		+0,36	

**Figure 1: Existing and desired structural configuration in the sample**



Analysis and interpretation of data related to the current situation reveals that overall entrepreneurial and mechanistic forces are in advantage over professional-adhocratic tandem, excepting ING Bank, where the professional component has a higher value level component of the business. The reality of these organizations requires a structure with mecanist-entrepreneurial trends.

Relational research of personnel requirements tends to reveal a large configuration mechanistic-adhocratic accents. Although such a situation does not involve, theoretically, a collective intelligence of high level and requires a mechanistic type structure, diagnosis reveals a behavior and a bureaucratic-mechanistic structure. The explanation may come from specific type of environment, which has experienced big changes as a result of the financial and economic crisis since 2007, and it is linked, in our opinion, and changes the optics on the necessary skills and employees and/or will be drawn within the system. The crisis requires, first, the existence and enforcement of clear procedures, but also the ability of employees to be more involved in the business of lending and other important activities of banks, to work in teams and solve problems with a a higher degree of difficulty.

## 2.1. The cultural diagnosis

The study undertaken at the level of the sample chosen was based on quantitative methodology. In the absence of mathematical tools of organizational culture, the second questionnaire (Person, 2001) used the most common organizational values and norms and analyzed the way in which these are applied at the level of branches of the four banks. This time the comparison was carried out against a self-referential cultural representative for this system and allowed the identification of positions in which the banks are located at each of the criteria taken into consideration (table 2 and figure 2).

In the questionnaire, each standard has been noted to 5 questions (50 questions) and the grid consisted of 4 levels of scoring: A – totally agree; B-rather agree; C-rather disagree; D- totally disagree.

Each of these levels has been quantified, +2, +1,-1,-2 or -2,-1, +1, +2, depending on the meaning of the question. For each standard the amount was recorded at the 5 questions, and the result was multiplied by 10 and was expressed as a percentage. Final results obtained represent the average of the notes provided by the persons included in the sample from each bank. In general, cultural situation in the system may be seen as negative criteria such as "innovation" (-15%), "concern for excellence" (-10%) and the "trust in the atmosphere in the organization" (-10%) and very satisfactory to each other, such as, "care for a good management" (5%), 'customer care (8%), "confidence in the hierarchy" (12%) and "care of colleagues" (13%).

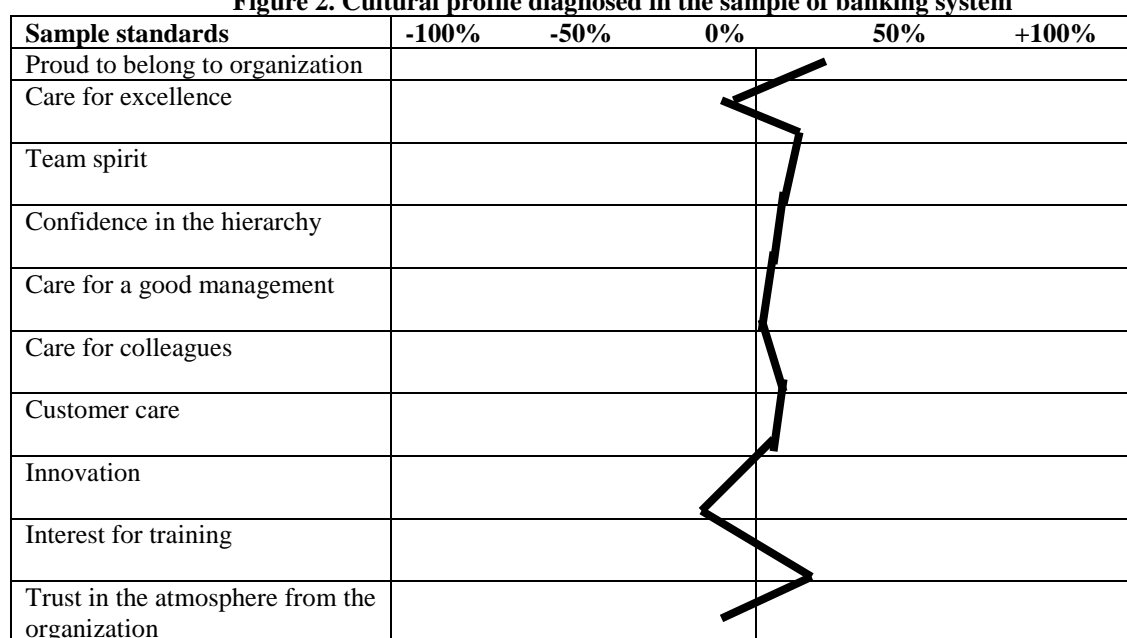


**Table2: Cultural characteristics of the sample bank (%)**

No	Organization standards	TOTAL	BCR	Alpha Bank	ING Bank	ProCredit Bank
1	Proud to belong to organization	+24	+33	+19	+19	+25
2	Care for excellence	-10	+ 6	- 20	- 16	- 10
3	Team spirit	+15	+18	+16	+10	+16
4	Confidence in the hierarchy	+12	+14	+ 8	+10	+16
5	Care for a good management	+ 5	+13	+ 2	+ 3	+ 2
6	Care for colleagues	+13	+15	+12	+10	+15
7	Customer care	+ 8	+ 7	+ 5	+ 8	+12
8	Innovation	- 15	- 6	- 21	- 18	- 15
9	Interest for training	+22	+25	+21	+19	+23
10	Trust in the atmosphere from the organization	- 10	+ 2	-18	- 16	-8

At the individual level is noted interesting variations, which are influenced, from our point of view, by different degrees of vulnerability of these banks, by current economic and financial circumstances and on the way in which countries of origin of the capital majority shareholder in passing through this crisis.

Thus, BCR-Erste recorded, in general, positive values to all of the criteria, with the exception of that in relation to innovation, but without the notice about confidence in internal atmosphere, care for promoting excellence or care of customers. It can be said as the only value in the criterion "proud to belong to organization", which remains high with all erosion that was submitted to confidence in banking organizations in the last few years.

**Figure 2. Cultural profile diagnosed in the sample of banking system**

Situations recorded at ING Bank and Piraeus Bank are fairly similar between them and all that mattered in decisive final results. In the criterion "concern for excellence", registered values -20, respectively -16, in the criterion "innovation", levels - 21, and -18, "trust in the atmosphere from the organization ", the values -18 ,respectively -16. Negative values come to confirm that these two banks have not emphasized the cultural component to maintain a positive energy and to face the competition.

Practically, they are not emphasized the values that support improvement of the knowledge, increase motivation and which are decisive factors in overcome competition.

Raiffeisen Bank is located in an intermediate position between BCR-Erste and the other two banks included in the sample. Unlike the BCR-Erste, it has lower values to the criteria "innovation" (-15%), "concern for excellence" (-10%) and the "trust in the atmosphere in the organization " (-8%), which shows that its situation is better, but it is still not far away from a satisfying use to the concept of organizational culture in improvement of management and in carrying out its mission and increasing quantitative and qualitative strategies on the romanian market.

The diagnosis made allows the culture without taking into account the apparent aspects. According to several researchers, common values are located in the core organizational culture, contributing to transformation of praxis activities in significant and appreciable activities. They provide the link to the organization with significant values of the company in which it is implanted and can ensure a competitive advantage. Most of the organizations have in common prosperous features of cultural order.

Distinguishing common values can strengthen institutional identity, improve collective commitment, create a social system internally stable and reduce the need for both formal and bureaucratic controls. Held on the second level of analysis of organizational culture (Schein, 1985, Martin and Frost, 1996), the above diagnosis highlight weak points (the poor values to the criteria above) which are not visible on the appearances and the elements formalized in these institutions.

They must represent following poles of interest in improving organizational culture by way of a disclaimer that the requirements which they correspond.

## **2.2. Diagnosis of life positions within the team**

To achieve at organizational level, the manager must also introduce the human factor. This factor is affecting the conditions for success, but it is also very difficult to motivate. Between the structural configuration and the environment, the connection might seem relatively rational, cold, determined. Taking into account the human factor causes the manager to enter into a world more vibrant, more intense, which is based on emotional energy.

The manager is located in the position in which they must use the best that human potential has the organization. Only with this energy, the organization is to succeed. To study people's mobilization within the framework of the organization it is necessary to use a work properly.

The graph "positions of life" proposed by Ernst, from the School of Palo Alto, view the rules for operation of the human components in the team work, and gives a real image, depending on which this resource is better insert within the organization (de Person, 2001).

It is achieved by applying a questionnaire containing 7 themes of working life, each with 4 possible answers, respectively a, b, c, d. The points recorded to the variant a corresponds to the quadrant +, -; those from b correspond to the quadrant -, -; those from c correspond to -, + and those from d to the quadrant +, +. The situation shown is the average for the whole sample and the 4 banks. Mean values were represented by surfaces in the 4 quadrants as rectangles, whose base is constant.

The positions of life shall appear on a system of axis, in which on the ordinate is located the one person he does it on its own, from the "OK" (at the top), to "non-ok" (on bottom), compared with the environment in which they are located.

Perception "OK" is symbolized with the mark +, and perception "non-ok", with the mark -. On the abscissa is post judgment that a person has on the remaining members of the team: others are "OK", i.e., worthy of esteem, respectable, well-trained (+), or, on the contrary (-).

This appreciation is only overall trend, meaning that it may not be identical for all evaluation team partners, may not provide information on developments in its own system of personal representation in time and also relational environment can change him.

The intersection of the two axes cuts relational space in four areas:

- in zone 1 (+ -), the person feels superior (+) and place the others on a lower position (-). Such a person is feeling very confident (+) and does not have a high esteem for its entourage (-), that it consider mediocre and main cause of ill team;

- in zone 2 (- -), the person does not have a esteem to himself and no others, and both sides is not worth much, what could induce a distrust and lack of hope;

- in zone 3 (- +), the individual does not have a high self-esteem and it cannot be felt at the height of which he is a member of the team, having a tendency to be accepted by a sag excessive, through multiple justification; in this position the individual feels on trial all times;

- in zone 4 (++) , the situation is more dynamic, because the individual feels confident in himself and on the team is part of. They are so secured conditions of a mutual respect, even if differences of competences appear. A person located in this position thinks that can establish positive relationships with others, to which receives a similar response.

Relational sphere within the teams and to the business has been studied through this scheme of life positions. Overall individuals surveyed also tend to hold themselves and their teams, in the quadrant III (- +), which means an atmosphere of obedience, the obedience and the lack of initiative, which is a

characteristic organizations of mechanistic bureaucracy type. In fact, the highest score is recorded in quadrant III, typical characteristic to mechanistic-bureaucracy type, followed by the quadrant II (- -).

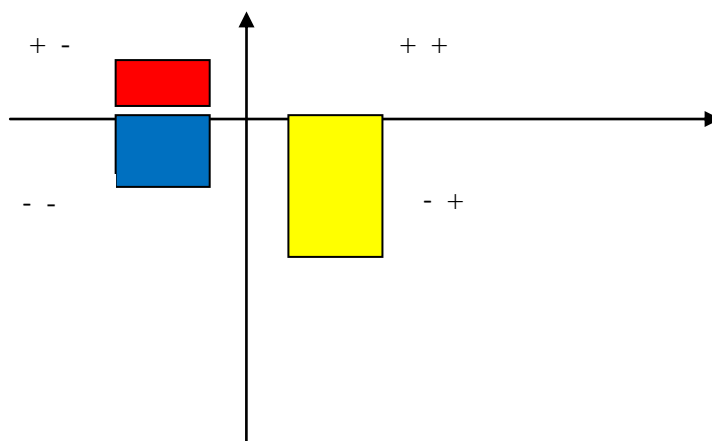
Significant result for the case (- -), quadrant II, reveals that the atmosphere in the teams is not normal, both for the individual as well as for his entourage. In the best case, such a team or organization will hide behind procedures, regulations, in which actually does not believe. It is, in fact, a team or organization where bureaucracy stifles performance. The score recorded in quadrant IV (+ +), comes to support the results that adocratic force has recorded after structural diagnosis previously described.

As regards the individual situation of the four banks analyzed, it should be observed near results from Alpha Bank and ING Bank, a better position to BCR-Erste and an intermediate position for Raiffeisen Bank (table 3 and figure3).

**Table 3: Positioning of the sample banks in the chart positions of life**

No.	BCR-Erste	ING Bank	Piraeus Bank	Raiffeisen Bank
1	D	b	d	c
2	B	b	b	b
3	C	c	c	c
4	C	b	b	c
5	B	b	b	c
6	C	b	b	b
7	C	a	b	a

**Figure.3. Distribution of positions of life - Raiffeisen Bank (Romania) SA**



The three approaches undertaken in a sample of banks chosen for the study shows the staffs wish to evolve in a structure with an adhocratic and more accessible component. Although I agree with the promotion procedures and work rules where activity recorded a high degree of repeatability, the employees feel and interpret the negative trends of excessive formalization of organizational structures of the romanian banking system.

Excessive trends mechanisms are perceived as having a negative influence in relation to creating a more relaxed work environment where creativity and innovation can be demonstrated with courage. The strategies of banking system in Romania have as objective the improvement of activities by managing risk, high quality relationships with clients, creating an environment in which individual expression, which involves retention, training and staff development, increase its autonomy. These strategies should be based on a work environment based on mutual confidence, autonomy fare being raised that is to say on a style of leadership to encourage the adhocracy.

The analysis of cultural phenomenon reveals, however, that the banking system does not show adequate concern and not properly managing the organizational culture. He has not been the subject of analysis of the present situation, and the proposal in this area does not have been sufficiently documented. Low values recorded from the standards such as "innovation" and "confidence in the atmosphere in the organization", reveals that employees denounce a culture and a climate that does not support the whole performance.

### 3. Conclusions

The study proposed may be considered as a model to highlight alternative the differences which arise between what propose and carry out management of the analyzed banking system and what receives a sample representative of employees with respect to structural context (particularly its relational dimension), social context and social climate.

Such an approach is important to identify pathways on which management in the banking system need to place special emphasis on the process of change for creating climate necessary to achieve strategic objectives.

This process should be aimed at improving spot structure on functionality, increased cultural values increase favorable performance and the creation of a work environment more permissive in relation to the autonomy of employees.

We believe, however, that its success is dependent upon the manner in which the bank failed to decline strategic objectives, to allocate appropriate resources and to motivate staff, to monitor active and in good time the situation.

Such a goal involves the use of a set of management tools able to facilitate the strategic approach and to meet all its objectives. Unlike most existing management tools that address the strategic and implementation process was fragmented, leading to compatibility problems, Balanced Scorecard presents a comprehensive methodology and consistent in this regard. Therefore, we considered it necessary to address the strategic process, organizational performance and the changes it requires the use of this instrument at Raiffeisen Bank Romania SA and banking subsystem that it is part of.

### 4. References

- Bessire, D. (1999), Du Tableau de Bord au Pilotage : L'entreprise au risque de se perdre, Congrès de l'Association Francophone de Comptabilité, Angers (France).
- Burgelman, R. A. (1991). Intraorganizational ecology of strategy making and organizational adaptation: theory and field research'. *Organization Science* 2: 239-262.
- Crozier, M., Friedberg, E. (1977). *L'acteur et le Système*, Paris, Points – Seuil
- Hofstede, G. (2002). The pitfalls of cross-national survey research: A reply to the article by Spector et al. on the psychometric properties of the Hofstede Values Survey Module 1994. *Applied Psychology an International Review*, 51.
- Martin, J, Frost, P. (1996). The organizational bcultural war games: A struggle for intellectual dominance, in *Handbook of organization studies*, London and Thousand Oaks: Sage Publications, p. 599-621
- Mintzberg H. (2004). *Le Management: voyage au centre des organizations*. Paris: Editions d'Organisation.
- Schein, E.H. (1985). *Organizational Culture and Liderism*. San Francisco: Jossey-Bass.
- von Krogh, G., Roos, J. (1995) .A perspective on knowledge, competence and strategy., *Personnel Review*, Vol. 24 Iss: 3, pp.56 – 76
- de la Villarmois ,O. (1999) .La méthode DEA outil d'évaluation de la performance des agences bancaires, *Décisions Marketing*, n°16, pp.39-51

# COMPARISON BETWEEN THE LOBBY ACTIVITIES IN EU AND USA – A THEORETICAL APPROACH

VASILCOVSCHI Nicoleta

Lecturer PhD Faculty of Economics Sciences, “Andrei Saguna” University, Constanta, Romania,  
[nicoletavasilcovschi@saguna.eu](mailto:nicoletavasilcovschi@saguna.eu)

OANTA Stefan Ilie

PhD student, Academy of Economic Sciences, Bucharest, Romania,  
[stefan\\_oanta@yahoo.com](mailto:stefan_oanta@yahoo.com)

## Abstract:

*An interest group refers to a voluntary association that looks to promote different advantages for its cause. Our work has its origins in a different analysis of the EU and USA lobbying landscape which is very different and always in a process of changing. In the first part of this paper, we present the organization of lobbying in the European Union, and we provide a detailed account of European Union institutions. The focus of the second part of our paper is a presentation of lobbying in the USA, its evolution and actual context. In conclusion, we present a comparison between European and American lobby activities nowadays.*

**Key words:** interest groups, lobby, control, influence

**JEL classification:** D71 - Social Choice; Clubs; Committees; Associations

## 1. Introduction

Interest groups are perceived in a different light in every political system and therefore are treated differently in each political system based on experience with representing interests and objectives. Essentially, the representation of interest groups is a legitimate and integral part of democracy, which efficiently qualify the lobbyists to be credible political actors.

An interest group that seeks its objectives in the political arena, or attempts to influence economic rulemaking, is apparently in line with the spirit of democracy.

Nowadays can be a rich dialogue, democratic, open, between interest groups representatives and political or economic institutions. The interest groups are well-known for providing information and technical expertise to ensure clarity on regulations formulation.

In theory, the influence of interest groups is in accordance with the principles of democracy. In practice, the influence of interest groups can lead sometimes to political corruption, inequality of representation or an overcrowding of political institutions. As a result, some political or economic systems have found it prudent to regulate the representation of interest groups.

These regulations should be considered not only as written and unwritten standards and practices but also as legal regulations adopted by the government which must be respected by interest groups when they attempt to influence government. In this manner, interest groups are penalized for failure. By these regulations, the aim is to ensure the responsibility and transparency of policy and the legitimation of its practice by structuring and regulating the relationship between political actors and interest groups.

We consider it necessary to examine EU regulations regarding the activities of lobbying in a comparative framework with American and Canadian regulations on lobbying.

A comparison allows us to observe if the European Union's efforts to regulate lobbying activities, are, in fact, relatively weak, and to argue if it is prudent for EU institutions to create more severe regulations in light of information provided by this comparison.

## 2. The lobby in the European Union

The European lobbying process is very different from one region to another. There are more than 1,000 trade associations in the EU, about 750 NGOs (representing consumers, environmentalists, religions, families), European representative bodies of about 500 large companies, about 150 regional offices, 130 specialized law firms in the field of European Affairs and an unspecified number of consultants, with most of them specializing in regulating and monitoring EU funding programs (Lehmann, 2003).

For the European Union, interest groups can create the ways for regions, at the international level, to get important economic or strategic information for development.

### a. The EU and its Institutions

Complex multi-level policy making in the European Union produces an equally complex system of interest representation. An actor who tries to influence EU policy in this complex system has to deal with sub-national institutions of member states, as well as with multiple supranational institutions (Greenwood, 1997, p. 27).

What further complicates the system is the rapidly growing number of interest groups in the EU over the last ten to fifteen years. This trend of increasing representation of interest groups also seems like it will continue, albeit at a slower pace, in the future (Lehmann, 2003, p.53). This creates difficulties to analyse, prioritize, and structure the plurality of interests in the EU. Despite the complexity and growth of lobbying in the EU, which creates potential complications, the EU has responded with a *laissez faire* approach to the regulation of lobby activities.

When there are assessments on lobbying regulation, it is better to consider the nature of representation of interests in relation to the objectives of the system in interaction with interest groups.

The EU approach to regulating interest groups may seem soft compared with countries with a rich history of lobbying, but the rules and practices are in line with current EU objectives. (Chari et al, 2007).

We can, however, hope that these objectives will change in the future, requiring a review of regulatory policy.

EU institutional actors responsible for formulating and implementing this policy include the Council of Ministers, the European Commission, and the European Parliament. Each institution is responsible for a diverse function in policy formulation and implementation, and therefore, is pursued by lobbyists in different ways and at different stages of policy formulation. Each European institution has a unique relationship with lobbyists.

The Council is meant to represent the interest of member states and has the ability to reject or amend proposals that are presented by the Commission, and it establishes long-term goals for the EU (Chari; Kritzinger, 2006, p. 21). The Council is often considered to be the last accessible institution of the EU due to its loyalty to the member states. The Commission is the executive body of EU. It is responsible for EU interests; it has the exclusive right to initiate EU proposals in different areas of regulations and is responsible to ensure that members respect them. As a result, lobbyists consider the Commission the principal institution for collaboration in the EU.

The Commission is open to lobbyists and considers that the lobby is essential for policy formulation and puts a strong importance on open dialogue with outside interests, which offer specialized and technical expertise (Greenwood, 1997, p.2). Nowadays, it is recognized that the Commission often focuses on a core, a dominant interest, which leads directly to targeting by interest groups on this interest. From this point we can observe that there is unequal access to the Commission for different interest groups.

The representative body of the European Parliament has the power to approve, amend, or reject legislation in different policy areas and can influence the appointment of Commissioners. In terms of lobbying, Parliament became a target for influence lobbying activities at the European Union level. Some authors describe the Parliament as the must open of all European Institutions, and it is considered a “natural target for non-business interests” (Greenwood, 1997, p. 42).

In the **Table 1** we describe the role of EU Institutions in lobbying process.

**Table 1: European Union Institutions and the lobbying process**

<b>EU Institutions</b>	<b>Council of Ministers</b>	<b>European Commission</b>	<b>European Parliament</b>
<b>The responsibility in EU</b>	Reject or amend proposals of Commission	Proposals in different areas	Amend or reject the legislation
<b>The relation with interest groups</b>	A formal relation	An informal relation	A strong relation
<b>Lobbying process</b>	It is neutral	It is influenced by different interest groups	It attracts different interest groups, mostly from business

Source: Own representations

## **b. European Union and the practice of influencing interest groups**

The European Parliament is the only institution from the European Union with formal lobbying regulations. Due to its concerns about the abuse of lobbying in 1980 and 1990, the European Parliament began to investigate the lobbying activities in European Union institutions. These investigations have resulted in reports issued by Galle, Ford and Nordmann, which have resulted in required minimal standards for regulations which are ensured through a code of conduct for foreigners and for European Parliament members. Its regulations have ordered the registration of lobbyists, but interest group representatives have to provide less information than in the USA or Canada.

The information that lobbyists must provide include limited details on lobbying. In addition, the interest group representatives must respect a Code of Conduct.

The European Commission seeks specific information from important interest groups and is open to collaborate with them (Malone, 2004).

In response to pressure from the Ford Report issued by the Parliament in 1990, it has begun a self-regulation policy of interest groups to promote an open dialogue and ethical administration of the regulations.

We can observe that the regulation of interest groups in the European Union is significantly reduced because the Parliament has an unclear policy governing the representation of interests. Making a comparison between this practice and those in the United States and Canada provides an interesting perspective on strategies and possible alternative approaches for regulating lobbying that EU can take in consideration.

### 3. The lobbying process in the United States of America

The USA government has the longest history and is the most experienced in the regulation of lobbying from all governing bodies of developed states. As result, the United States exists as an ideal example for a basis from which a comparative assessment can be made.

This model shows the levers that can overcome against corruption associated with lobbying, the overpopulation of government institutions, and unequal representation and consideration of interests.

Modern scholars in US policy and lobbying recognize not only pluralism in the representation of interests in US policy and lobbying but a hyper-pluralism. The USA has been continually challenged to find a balance between the First Amendment and a lobbying industry which supplies billions of dollars and its institutions structured with responsibility and transparency (Chari et al, 2007).

To regulate further in the USA, the Federal Act was enacted to regulate the activities of lobbying in 1946, which covers any person who by himself or through an agent, or employee request, collect or receive money or anything of value to be used primarily to help passage or defeat of any legislation by Congress. In addition, the Federal Act requires lobbyists to submit financial records (Malone, 2004).

In 1995, the Federal Act was replaced by the Lobbying Disclosure Act which was subsequently amended in 2007. In the measures, the regulations have been strengthened by expanding the definition of a lobbyist, which requires recording of all representatives of interest groups in both the House and the Senate, and provides the establishment of semi-annual reports that present issues of interest, institutions contacted, lobbyists involved, and associations with any foreign actors.

Although over time in the United States of America, many attempts to regulate the rules of interest have been criticized, each in turn continues to allow for re-interpretation. At present, the formalization and legalization of the regulation of interest group activities is in a sharp contrast with unclear and informal approach of European Union.

In addition, the regulation of lobbying activities in the USA is evident at all different levels of American political society. The increase of regulations has restricted the ability of lobbyists to provide gifts to government officials and has brought more transparency through frequent activity reports.

The reforms that have followed were recently made during the Obama Administration in 2009 in the Recovery Act by restricting the gifts given by lobbyists (Stolberg, 2009).

In the USA, the regulation of lobbying has had an important positive impact in the public policy process and has created the new forms of openness, professionalism and collaboration in public administration.

Despite that, the interest regulations in USA still have some gaps, and the regulation of interest groups activities rules prove a strong administration which is in contrast with that found among the EU institutions.

In the figure 1 we describe the lobbying process in the USA.

**Figure 1: Lobbying process in USA**

Lobbying Disclosure Act – 2007	
-	Information about lobbyists and lobbying activities,
-	Issues of interest for lobbyists and public administration in the USA

Source: Own representations

### 4. Conclusions

We may conclude that the EU objective in terms of lobbying is to allow the free flow of specialized information, as long as there is no prejudice to the integrity of the Union. The EU efforts to regulate lobbying activities are relatively weak, but they are in line with EU objectives. Due to the nature of the EU as a political institution, we may conclude that it is naturally protected from the harmful effects of lobbying that exist in other places like the USA. In the European Union, the Commission is not elected by popular vote, therefore, policy makers are not as reliant on campaign contributions as senators and congressmen and women from the USA are. The principal function of the Commission in the European Union is to implement regulations that increase market efficiency and this process is facilitated by the flow of specialized information.

The lobbying experience in the USA suggests that regulations have promoted openness and professionalism in the practice of interest representation. In addition, the USA still reaches a democratic dialogue by limiting the ways by which policy is influenced and this reflects the unique political circumstances in each state.

Therefore, we also conclude that the European Union could benefit from a more professional and transparent policy and therefore should create stronger legislation to prevent the abuse of lobby. This will serve to promote ethical behaviour and a more complex lobbying practice.

## 5. References

- Chari, R.S.; S. Kritzinger. (2006) *Understanding E.U. Policy Making*, New York: Pluto
- Greenwood J. (1997) *Representing Interests in the European Union*, London: Palgrave Macmillan
- Chari R.; Murphy G.; Hogan J. (2007) Regulating lobbyists: a comparative analysis of the United States, Canada, Germany and the European Union, *The Political Quarterly*, 78, p. 422.
- Lehmann W. (2003) *Lobbying in the European Union, Current Rules and Practices*. Available at [http://ec.europa.eu/civil\\_society/interest\\_groups/docs/workingdocparl.pdf](http://ec.europa.eu/civil_society/interest_groups/docs/workingdocparl.pdf).
- Malone, M. (2004) *Regulation of Lobbyists in Developed Countries, Current Rules and Practices*, Available at <http://www.environ.ie/en/LocalGovernment/LocalGovernmentAdministration/StandardsinPublicLife/PublicationsDocuments/FileDownload.2048.en.pdf>
- Stolberg, S. (2009) *On first day, Obama Quickly Sets a New Tone*, published in The New York Times, Available at <http://www.nytimes.com/2009/04/25/us/politics/25obama.html?pagewanted=5>



## MANAGING ROMANIAN ORGANIZATION TO DEAL WITH CRISES

*Motto: "The crisis is the most blessed event that can occur for countries and individuals, as lead to progress." (Albert Einstein)*

**VELCIU Magdalena**

*Ph.D. student, National Institute of Scientific Research on Labour and Social Protection, Bucharest, Romania, magda.velciu@incsmpps.ro*

**Abstract:** *Forced to face the market fluctuations and financial constraints, one of the challenges of modern management is to lead organization to continuously improve their adaptability. More, organizations have the responsibility to integrate changes for creating a realistic strategy for adaptability, that is capable to give them the ability to predict, understand and adapt to environmental changes without unnecessary human losses. Thus, human resource management has a key role in passing the current turbulent times, because only humans have the ability to provide and generate creative solutions for economic recovery. To identify features of adaptive behavior of Romanian companies, in conditions of economic recession, I conducted a case study regarding performance variation and identify specific managerial measures implemented in companies during 2008-2010. Main results and conclusions confirm that companies have felt significant variations in performance and profitability indicators, as a result of negative effects of the global crisis. To respond to business disruptions, in addition to organizational changes, labor resizing etc., managers of Romanian companies have implemented human resources management measures for labor flexibility as a managerial alternative that supports business performance.*

**Key words:** crises, adaptability, human resources flexibility

**JEL:** H12, M12

### 1. Introduction: crises-a review and a new beginning

The current organizational environment is characterized by continuous economic, social, informational changes that require organizations to adapt in order to remain competitive, finding new organizational formulas and strategic alternatives designed to enhance their capacities and opportunities.

Crisis, as a process, should be seen as a necessary step in the process of moving toward new stages of development. Initially the crisis begins as a disturbance of the regular course of economic, social and organizational life, but it is a necessary step that turns old structures and relations to some new superior ones (Dilts, 2009). The global crisis has forced organizations from everywhere to review their internal situation and available resources. Thus, managers are placed in a position to manage the existing resources and exploit the potential of resources underused so far: people, values and strategic alternatives.

Under these conditions, competitive advantage is not static, but is determined by the organization capacity of adjust its own offer according to fluctuant market demand and to better exploit and prediction the emerging opportunities. The success depends on the sensitivity to market, adaptability and appropriate response build through effective, flexible and efficient exploitation of existing resources and processes.

Moreover, under the current crisis, it is necessary to think again priorities and review to straight the strategic changes that can be decisive for further economic recovery. More than ever, we need those new strategic measures designed to enhance valences and opportunities of the changing environment, based upon new principles and managerial practices, and appropriate use of resources, base on capitalizing human capabilities rather than limitations.

Thus, particularly the **human resource management** and the processes of knowledge, innovation, research, strategic reorganization can provide new solutions and new informations necessary to adaptation to the periods of crisis and global changes. More than ever, under the current crisis, we need Human Resources Strategies designed to enhance valences and opportunities of the changing environment concerns stimulating flexionary forms of work and human resources development designed to increase productivity and to keep workers active on the labour market.

To better reflect the specific needs of organisation, in a fluctuant environment, the flexibility is seen as an essential element in trying to make the organization and their workers as adaptable as possible,

in fluctuant conditions of economic life characterized. The **work flexibility** is given by the elasticity of labor resource (work volume, working time, location, work organization, etc.) according to the company's production needs.

To accommodate fluctuations in the market and their own financial constraints, organizations need a flexible human resource, which balance the adverse effects. In terms of workers, flexibility could contribute to a favorable reconciliation between work and private life, allowing them to build their own professional development schemes, ensuring long life learning and personal satisfaction. In other words, workers would prefer work contract that ensure them a good security and an adequate quality of work.

In a globalized, highly competitive environment, Romanian companies are being faced with new challenges that managers need to find quick and effective response. This requires better knowledge of that environment influence on organization activity, respect of the principles on which it is based organization, but also a new approach to internal organizational resources and relations between them. Especially in the current changing context, organizational management is forced to adapt and find new alternatives as sources of competitive advantage and capitalizing them most precious resource, human resource, as the main driver for progress.

*„At microeconomic level, adaptability and flexibility are key factors characterizing the new management system of modern organizations in a changing environment. Under actual conditions, managerial concerns was around the concept of change, also strategies and actions leading increasingly as response to developments and opportunities of the environment. Flexible management is to change structural and functional parameters of the management organization, offering dynamism to activities and its results.”* (Nicolescu O., Verboncu I., Profireoiu M, 2011).

## **2. Aim and methodology**

This work is devoted to investigate the response of Romanian companies, regarding the performance variation and identifying specific managerial measures implemented in companies during 2008-2010.

For this, I conducted a case study based on interviews (face to face interview) applied to managers and management responsible, in 125 medium and large, active, companies regarding aspects of their development in 2008-2010. The study was part of the research project "*Managing human capital under condition of labor market flexibility*", conducted inside National Institute for Scientific Research on Labor and Social Protection, in 2009-2011. Following results and conclusions are an adaptation of the project work.

Investigated companies activate in urban (88.8%) and rural (11.2%) in one of the following sectors: industry (27.2%), construction (20.8%), and service (52.0%). Most of the units (74.4%) hire between 10 and 49 employees. A percentage of 17.6% of the total have between 50 and 249 employees, and 8.0% are units with over 250 employees. Just 7.2% of the total sample analyzed are companies associated in a group or association at national level, 10.4% are part of a multinational group, and 77.8% are not associated at national or multinational level. Half of investigated units (50.4%) are using a certified management system.

## **3. Main results and conclusion**

Main results and conclusions confirm that investigated companies have felt variations in performance and profitability indicators due to negative effects of global crisis. Many companies have initiated organizational changes and resources resizing to respond to business disturbances. More, we are interested in management practices implemented for labor flexibility as a management alternative that supports business performance.

### **Performance and profitability**

In last three years, evolution of the company's performance indicators suffered major variations, following the negative effects of economic recession (table 1). These developments have affected Romanian companies, regardless of urban/rural environment, class size, sector of activity.

**Table 1: Evolution of the performance indicators (number of units), 2008-2010**

	2008 / 2007				2009 / 2008				2010 / 2009			
	increased	the same	decreased	dont respond	increased	the same	decreased	dont respond	increased	the same	decreased	dont respond
turnover	79	11	23	12	40	13	64	8	40	14	63	8
profit	67	12	27	19	25	19	62	19	33	12	62	18
investment	56	28	14	27	35	31	31	28	30	26	40	29

Most of investigated companies (63.2%) showed an increase in turnover, in 2008 than 2007, and only 18.4% had a decrease of the indicator. Since 2009 and then in 2010, the number of companies with turnover growth is reduced (32%) and the number of companies with decreasing turnover is much higher (51.2% in 2009 and 50.4 % in 2010).

Obtaining profit is the main goal pursued by any company and is a measure of the effectiveness of its business. In 2008, 53.6% of the companies investigated have obtained an increase in profit, and profit fell in 21.6%, compared with profit of 2007. With the emergence of recession, the situation changes, so the share of enterprises that profit fell (49.6% of cases) both in 2009 and 2010 is higher than the share of enterprises that profit increased (20.0% in 2009 and 26.4% in 2010) comparing to the previous year.

Investment indicators are inherently correlated with turnover and profit of the company. In 2008, investment increased in 44.8% of units and decreased in 11.2%, comparing with 2007. In coming years, investment has been a priority for 28% of enterprises in 2009 and 24.0% of enterprises in 2010, compared to previous years. In recession, this decrease has occurred in 24.8% in 2009 and 32% of cases in 2010.

As a first conclusion, since 2009 the results and performance have worsened in most analyzed companies, also with recession and adjacent negative effects.

### **Human resources management**

During the crisis, number of employees in investigated companies showed variations, like a first response of management for adapting to business disruption. Otherwise, evolution of the number of employees is perceived as an easy tool to try balancing the performance fluctuation.

Therefore we expect that the evolution of the number of employees with employment contract follow the path to performance indicators: turnover, profit, investment. According to international trends we expect that the number of temporary employees and the number of employees with part-time to increase.

#### **a) Evolution of the total number of employees with employment contract, in 2008-2010.**

The responses of participants in the investigation shows that the total number of employees with employment contracts increased in 41.6% of total units and decreased in only 16.8% (table 2), in 2008 than 2007. Starting with 2009 and then in 2010, the number of units that increased the total number of employees is reduced, however, are more and more units that decreased number of employees with employment contract (40.0% in 2009 and 40, 8% in 2010).

**Table 2: Evolution of the number of employees with employment contract (%), 2008-2010**

	2008 / 2007			2009 / 2008			2010 / 2009		
	increased	the same	decreased	increased	the same	decreased	increased	the same	decreased
number of employees with employment contract	41,6	37,6	16,8	28,0	28,8	40,0	20,0	36,8	40,8

For significant relevance, regarding the sector of activity, we found that, in 2008, employment increase in several units from service sector (in 61.5% of total) and decreased in 47.6% of industrial units. The situation is similar in 2009. In 2010, the situation recovers, especially in industrial units, where the number of employees increase in 40.0% of units.

**b) Evolution of employees number according to working contract, in 2008-2010.**

In most investigated companies, the evolution of the number of employees with permanent contract is well known and reported. Instead, about the number of employees with fixed-term contract or those hired by temporary work agencies, respondents do not know and could not give any details. The percentage of those who did not respond is over 70% (regarding fixed-term employees) and about 91% (regarding temporary work agency) (table 3) which prevent us drawing any conclusions.

**Table 3: Evolution of the number of employees, depending on working contract and working time(%), 2008-2010**

	2008 / 2007				2009 / 2008				2010 / 2009			
	increased	the same	decreased	don't respond	increased	the same	decreased	don't respond	increased	the same	decreased	don't respond
number of employees with permanent contract	38,4	44	15,2	2,4	27,2	39,2	32,0	1,6	18,4	49,6	31,2	0,8
number of employees with fixed-term contract	8,8	12,8	2,4	76,0	4,8	15,2	3,2	76,8	8,0	11,2	8,0	72,8
number of employees hired by temporary work agencies	1,6	8,0	0	90,4	0,8	7,2	0,8	91,2	0,8	7,2	1,6	90,4
number of employees with full-time	28,8	48,8	17,6	4,8	21,6	47,2	27,2	4,0	14,4	49,6	32,8	3,2
number of employees with part-time	5,6	28,8	2,4	63,2	4,0	28,8	4,8	62,4	6,4	24,8	7,2	61,6

**c) Evolution of the number of employees depending on work schedule, in 2008-2010.**

Analysing data about the evolution of the number of employees with normal working hours or part-time is difficult, as in previous case, because the people surveyed do not know the exact status of these categories, in over 60% of cases (table 3).

**Who is associated evolution of the number of employees with permanent contracts?**

We suppose that the evolution of the number of employees with permanent contracts is associated both with the evolution of the employees with full time and the number of employees with part-time.

To analyze this hypothesis we apply *Chi Square test of association*. The results show that there is a statistically significant interdependence with strong effect, between evolution of the number of employees with permanent contracts and the evolution of the employees with full time ( $\chi^2 = 153.1$ ,  $p = 0.000$ , and the Cramer's coefficient = 0.639,  $p = 0.000$ ) but there is no statistically significant interdependence between the evolution of the number of employees with permanent contracts and the evolution of the employees with part-time ( $\chi^2 = 3.547$ ,  $p = 0.939$ ).

**d) The evolution of wages**

63,2% of investigated companies reported higher wage cost than the previous year, and in 16.8% of cases it were lower. In the next two years, the percentage of units with salary increase is 40.0% in 2009 and 42.4% in 2010 than the previous year. But at the same time, there were several units that have wages decline (Table 4).

**Table 4: Evolution of wages(%), 2008-2010**

	2008 / 2007			2009 / 2008			2010 / 2009		
	increased	the same	decreased	increased	the same	decreased	increased	the same	decreased
wage costs	63,2	20,8	9,6	40,0	32,0	22,4	42,4	25,6	27,2

**The company implemented managerial measures (organizational, workforce resizing etc) to respond to changing environment**

Most Romanian companies have responded by putting into practice a series of organizational, operational and human resources measures, designed to facilitate the transition of economic recession when the effects of the crisis spread in business environment.

Regarding such management practices being implemented in the analyzed companies, we find that most units have applied wage constraints (69.6%), followed by measures of work organization (52.0%) and organizational changes (45.6%). Just a few companies have initiated to change working time of employees by changing the start and end of working schedule (26.4%) or changing the type of employment contract by introduction of flexible forms of employment (table 5).

**Table 5: Managerial measures applied in Romanian companies (%) in 2008-2010**

	yes	no	don't respond
wage variation	69,6	28	2,4
work organization	52,0	47,2	0,8
organizational changes	45,6	54,4	0
changes in production process	26,4	69,6	4
changes in working schedule	17,6	82,4	0
changes the type of employment contract	15,2	83,2	1,6

**Was company performance influenced by these measures?**

We suppose that, there were a positive evolution of turnover in units where were implemented some organizational measures or human resources changes. Analysis table is read by an independent association between independent variable "turnover" and the variables that design the managerial measures implemented.

So we take a critical look on units that turnover increased in 2010 then 2009. The results show that 75% of this applied salary variation; in 60.0% were implemented changes in work organization; in 52,5% organizational changes occurred (Table 6). For companies that have changed working schedule of employees or change type of employment contract, the incidence of increased turnover is low (17.5% and 7.5% of total).

**Table 6: Table of association between the incidence of managerial measures applied in companies and the development of turnover in 2010 compared to 2009 (%)**

	Evolution of turnover in 2010 compared to 2009			
	increased	the same	decreased	don't respond
wage constraints	75,0	85,7	65,1	50,0
work organization	60,0	57,1	46,0	50,0
organizational changes	52,5	57,1	36,5	62,5
changes in production process	30,0	28,6	20,0	50,0
changes in working schedule	17,5	28,6	15,9	12,5
changes the type of employment contract	7,5	42,9	12,7	25,0

#### 4. Critical

External organisational environmental changes and fluctuation require a rapid, adequate response from the companies management, but companies need a flexible and adaptable human resource. Also, the measures of human resource management must focus on multi-disciplinary learning and professional skills for innovation and reveal the human creative potential. Only in this case the companies will be prepared for further economic recovery.

In our opinion, an essential element is to ensure a balance between flexibility and security. Also, the principles of flexicurity approach aims to provide a secure framework, ensuring workers from the risks that come along with flexible labor market practices and precarious employment.

We note that this thematic approach is only a first step on the way to study the adaptability process applied at organizational level, which requires a multidisciplinary conceptual and methodological approach. Also, further effort are necessary for extending and deepening knowledge issues and testing new ways to optimize operational processes and performance management in the changing environment.

#### References

1. Dilts Robert, *Crisis, transition and transformation*, available on-line <http://www.ppdlearning.co.uk/resources/archive/crisis-transformation>
2. Nicolescu O., Verboncu I., Profiroiu M (2011) Starea de sănătate a managementului din România în 2010, ProUniversitaria.
3. Toffler Associates, *Creating Adaptive Organizations*, available on-line [www.toffler.com](http://www.toffler.com)

# SOCIAL CARE ORGANIZATIONS AND INSTITUTIONS

*ZODIERIU Elena*

*Ph.D. student, Faculty of FEEA/Department Management, "Alexandru Ioan Cuza" University, Iasi, Romania, elena\_zodieriu@yahoo.com*

**Abstract:** Social care management, pretty recently for Romanian society, but with tradition in the Occident, must be a priority for Romanian socio-economic policies. The Romanian society had learned many things from the non-governmental organizations that provide services for the elderly, basically being a model to follow for social care institutions. Management in social care is more difficult to accomplish because on one hand it requires taking moral decisions regarding the fate of those who perceive social care as safety net. On the other hand it has to respect the limits of budgetary resources or any other kind of resources.

**Key words:** social care management, organizations, social welfare institutions, services for the elderly.

**JEL classification:** J14, J17, J18

## 1. Introduction

Institutions are relatively stable structures of statuses, roles and social relations, having the duty to meet certain needs of people in society and to fulfil certain social functions (M. Vlăsceanu, 1996). In sociology, the concept of institution has two meanings. A broad sense, which involves a system of rules governing social area - family, kinship system, the system of political leadership and school, the complex formed by all schools, courts, etc. and a narrow sense including public systems such as: government ministry, municipality, county council. The diversity of needs and social functions associated with the diversity of institutions is a process named by T. Parsons as a process of institutional differentiation. As long as the institutions are becoming more numerous, more diverse, the social activity will be performed by a set of institutions. In terms of legislation, institutions consist of a whole more or less coherent rules or norms that define the basic structure of social order. Rules are formal and informal. The formal ones are included in laws or legal statutes and regulations.

The informal rules take the form of conduct, rituals, etc. can be written or unwritten, implicit or explicit. The organization has several meanings: the organization has a mission which is associated with certain objectives, and missions and objectives are associated with technical expertise; the organization is a group of people who interact in order to fulfil on common objectives. The organization is also a structure based on formal and informal rules that generate collective actions. The organizations reproduce institutions, but they also change them. It is known the fact that the organizations are not dependent by opportunities and institutional constraints, but by other organizations and constraints that are related to the scientific and technological development, the distribution of wealth or income, the orientation of political interests, etc. (M. Vlăsceanu, 2003, Organizations and Organizational Behaviour).

## 2. Social welfare institutions

Social institutions are a very important element in the system because, on one hand it assures protection for the persons in need, and on the other side helps the system to function and to be organized. In social care we meet both the term of institution and the term of organization. Institutions give the rules or the legal frame of interactions and the organizations promote actions and interactions in an institutional context. Between institutions and organizations there are at least three types of connections:

- a. The institutions are the legal base for the organizations that is through the legal system it gives different opportunities in order to sustain the collective agents. It also offers formal and informal constraints for the performances of the organizations.
- b. The organizations become the agents of the institutional change.
- c. The main characteristic of the institutions is the reproducibility. The routine makes the institutions promote constancy.

In the social systems of EU we meet two categories/types of institutions: those with responsibility for social care and those that are specialized in this area. The common feature of the modern social work is to develop local level, in local communities. Currently, in Romania the central level is more developed than the local one, where there are a lot of beneficiaries of social care. The second category of specialized institutions is the one that is functioning as public or private institutions, the ones that provide

housing, care, protection, rehabilitation for the elderly, disabled, children and other people in need. These institutions are established by the county or local budgets. These institutions are being subordinated to the general welfare departments or the local council (Dan Buzducea, Modern Social Systems, Global Trends and Local Practice, 2009).

### **3. The aging of the population and proper services for the elderly**

Ageing is not a new phenomenon. In recent decades this demographic evolution has occurred in many countries in Europe, North America and others. What is new is the scale, the speed with which this phenomenon occurs. During the second half of the century, most developed countries and particularly those in Europe have experienced an unprecedented population aging demographic history. In 1950, only 8% of world population was aged 60 or more. This figure would last till 2000 to reach 22% in 2050. In 2030, half of the European population will be aged 50 or older with a life expectancy at this age of 40 additional years. This will be a region with more than half of the population aged 50 or more. For example, Italy has the highest percentage of elderly- 18.2% and Ireland 11,2% - the lowest. Other developed countries such as Australia, Canada and the United States are at the lower end, 12% and 13%. (La securite sociale et la def du changement demografique). The term "elderly" refers best to the people who have passed middle age. The elderly are those people who are in the third or fourth period of existence, during which losses and decline in physiological, psychological, economic and social are the worst; these losses are not always due to biological evolution, but involved simultaneously social, economic and cultural factors".(Bogdan C., Geriatrie, Ed. Medicală, Buc. 1997, pag. 21). World Health Organization identified: middle age, middle or transition, between 45 and 59 years; older period: 60 to 74 years; old age, after 75 years; longevity, for those above 85 years.

### **4. Services for the elderly**

#### **4.1. Home care (home maintenance)**

The main feature of the elderly is the acute need of long term care knowing that on one hand the chronic diseases are the primary cause of death of the elderly, and on the other hand, chronic disability are the main changes of old age. Following the researches of the American gerontologists, led Stanley J. Brody to the following conclusions:

- a. The situations of the old age that require support are chronic and require medical and social services, continuous and sustained;
- b. The main support for the dependent elderly is the family members; if the family requests assistance it means that resources are limited and the elderly without resources require an alternative form of assistance.

These statements are based on the following facts:

- Links between generations are strong and viable, this being demonstrated by high proportion (84%) of elderly who live close to at least one adult child.
- Family members provide most of care (that lay), related to medicine and personal care (according to statistics of the Department of Health, Education and Welfare of the U.S.) and 90% of home help services.
- Older people are better cared for daughters than sons.
- The establishment for dependent elderly person is the last solution for the family when all the other efforts failed.

These findings lead us to recognize the essential contribution of the family and the effects on the psyche of elderly. Initiative, improvement and quality control services are the responsibility of the community support. Each town, taken separately, has its own resources and moreover, has its own rating system. There are two categories of care: directed against disability and functional impairment, and adapting the way of life to disability. Home care must be multidisciplinary, this means coordination of caregivers.

#### **4.2. Institutionalization of elderly**

The law 17/2000 on social assistance for the elderly presents the criteria for the access of the elderly to a care institution. Thus, an elderly person would require institutionalization in the following conditions: they require constant care, which cannot be achieved at home and no one can administer, has no legally binding and they cannot fulfill their duties because of health, the economic or family situations, the elder has no home and no income;

According to Law no. 17/2000 on social assistance for the elderly, home for the elderly is the social institution with legal conditions providing adequate housing and food, medical care, recovery and



rehabilitation, occupational therapy activities and leisure, social and psychological care. Homes for seniors, homes for the elderly and homes for chronic patients that already existed when the Law no. 17/2000 appeared will function as homes for the elderly with sections for elderly who need all types of care services, for those who need less care services and for the elderly who have chronic diseases. According to data from Ministry of Labor, Family and Social Protection in the first half of 2010 there were 131 homes for the elderly, with a total capacity of 7122 seats. From the total capacity, 25 with a capacity of 1570 respond to DGASPC, 52 with a capacity of 3734 respond to the local council and 54 with a capacity of 1818 seats are subordinated to NGOs. The estimated number of dependent elderly people is about 450,000, of which at least 140,000 would be in a state of dependence degree, this means that formal care provided by qualified staff is extremely underdeveloped in Romania. According to single electronic register of social services administered by MLFSP, there are a number of 228 public and private providers of social services that offer accredited home care services in 443 home care units. All social services for older people are organized in decentralized system and are funded only by local budgets. In 2010, MLFSP approved the granting of subsidies for Romanian associations and foundations with legal personality, that establishes social assistance units, subsidies for social services for older people, that worth 8,505,408 ron from the total grant of 19,999,905.28 from the state budget. So, 61 are home care social services for a number of 5679 beneficiaries, with a contracted value of 4,614,644 ron, 26 are residential centers for a total of 1,087 beneficiaries, 15 are centers for a total of 923 beneficiaries and 5 are social canteen for a number of 227 beneficiaries. In conclusion, from 322 subsidized social services in 2010, 107 were for the elderly, representing 42.53% of the funds allocated for grants.

## 5. Conclusions

The economic crisis is affecting the whole population, but in a different way. It deepens social polarization and social exclusion of vulnerable groups vulnerable in the absence of active coherent social policy and social protection. General features of social protection in Romania have direct relevance for social protection of older people: the social protection in Romania is below the European level, a critical financial situation of the population requires significant further intervention from the state, especially in terms of improving living conditions in social welfare institutions. Community services, community and nongovernmental structures for helping those in need are in early stages have a shy manifest towards the existing needs and there is still a highly specific interfamilial solidarity of the traditional Romanian family, model supported by the legislation. The funding schemes and existing social service networks were developed independently, based on a spirit of imitation more or less inspired, according to social conjuncture immediate emergencies.

## 6. References

- Buzducea D. (2009) *Sisteme moderne de asistență socială, Tendințe globale și practice locale*, Polirom, Iași.
- Cătălin Zamfir (2012) *Ce fel de tranziție vrem, Analiza critică a tranziției II*, Raportul social al ICCV no. 5, available at <http://www.inovatiiasociala.ro/index.php/jurnal/article/viewFile/124/141>.
- Gârleanu Șoitu Daniela (2006) *Vârsta a treia*, Institutul European, Iași.
- Harper Sarah (2010) *La capacité des institutions de sécurité sociale et de soins de santé à s'adapter à un monde vieillissant. Revue Internationale de Sécurité Sociale*, vol. 63 (3-4).
- Vlăsceanu M. (2003) *Organizații și comportament organizațional*, Polirom, Iași.
- Vlăsceanu M. (1996) *Instituții și organizații*, in Nedelcu A. *Psihologie socială, Aspecte contemporane* Polirom, Iași.
- Legea 17 (2000) *privind asistența socială a persoanelor vârstnice*.



